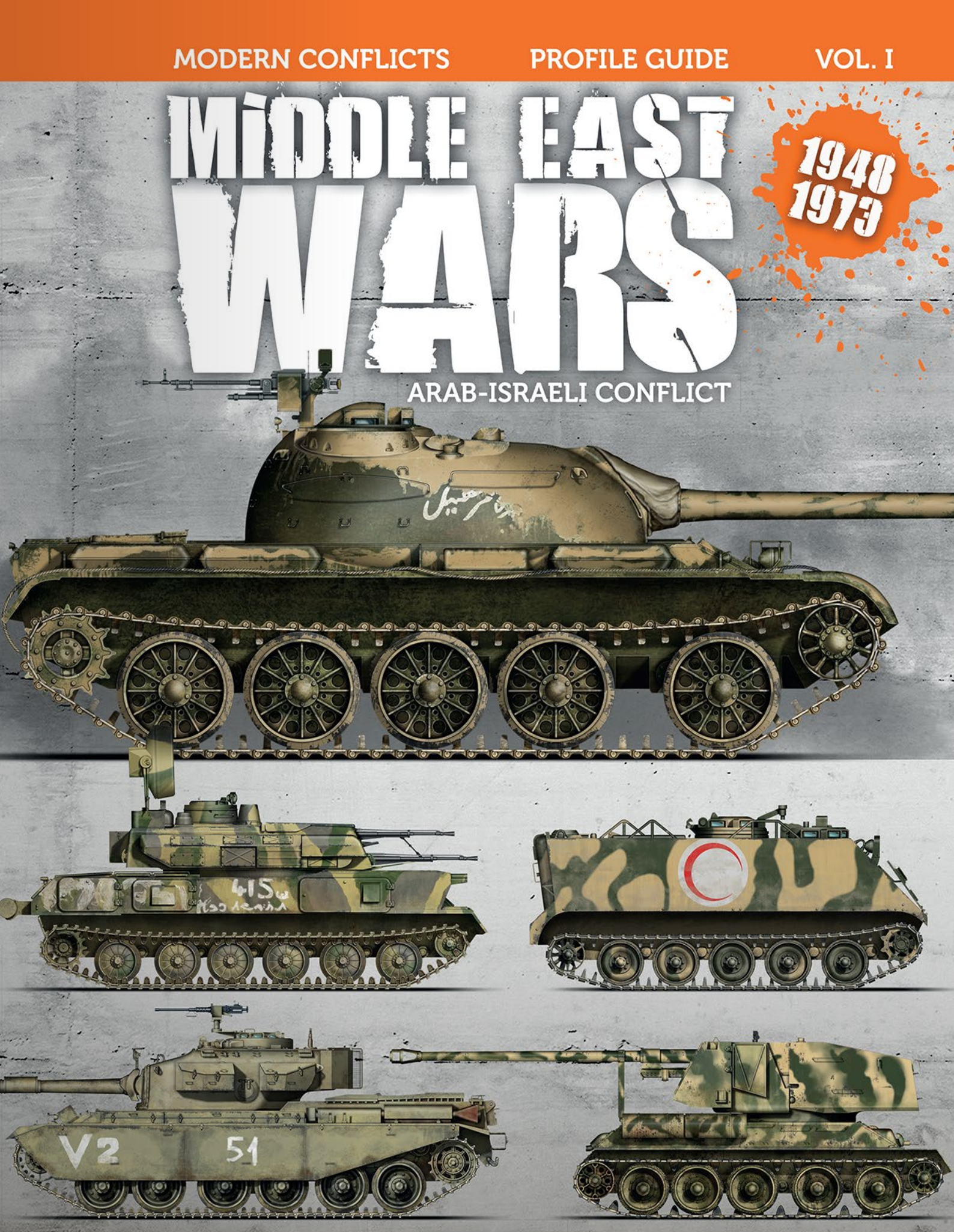
MODERN CONFLICTS PROFILE GUIDE VOL. I

MIDDLE EAST WARS

1948 1973

ARAB-ISRAELI CONFLICT



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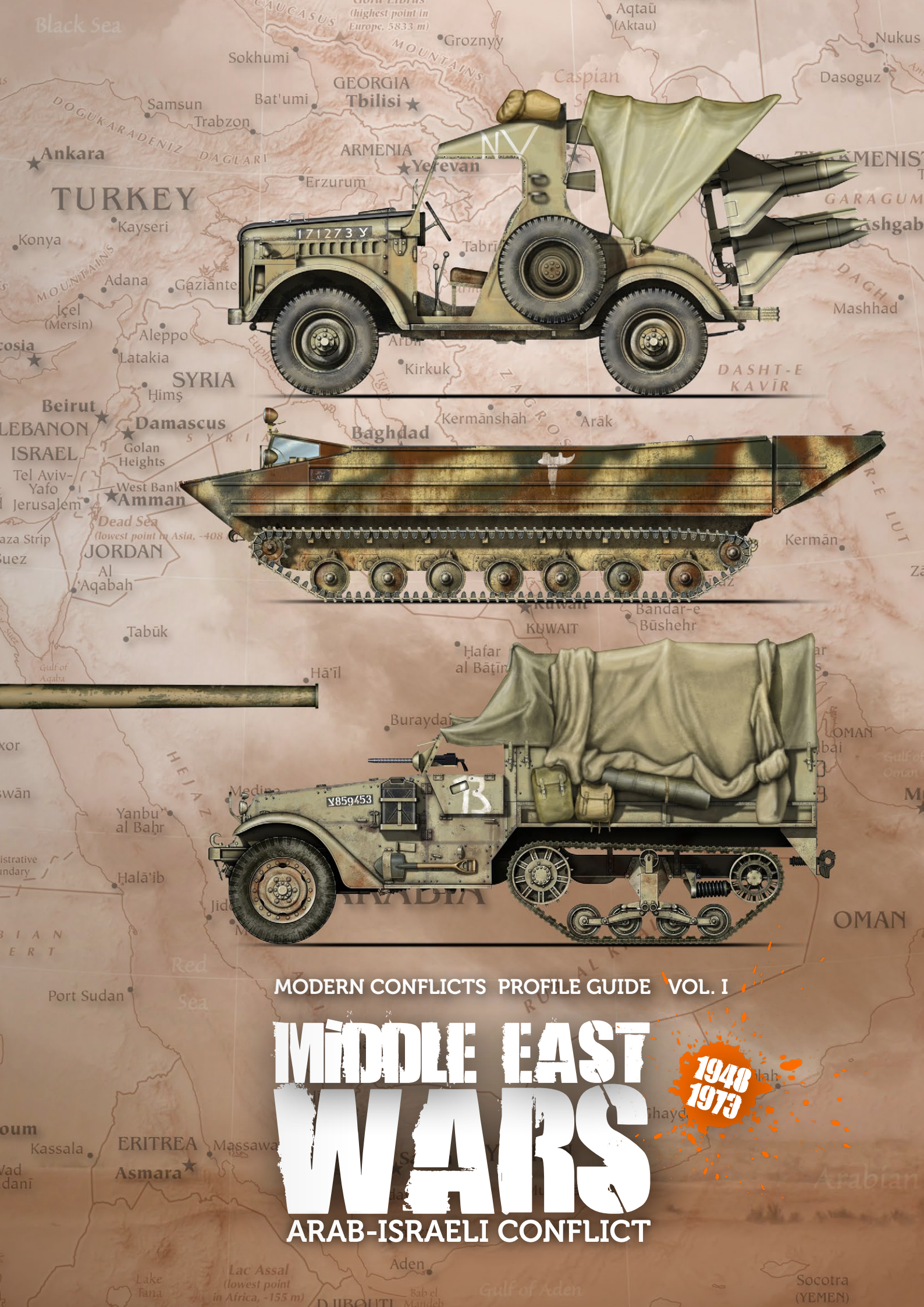

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ARAB-ISRAELI CONFLICT

Syrian Army T-34/85
Golan Heights, Six Day War 1967

INTRODUCTION

1967 IDF AMX-13

The Middle East has been a focal point of turmoil and conflict for over seventy years. During these turbulent decades, vast amounts of weaponry have been poured into the armouries of Israel and her Arab neighbours. Between the years 1948 to 1973, the focus of this book, not only has Israel doubled its size, but in two of the conflicts of 67 and 73 they threatened to involve the then world super powers. With America supporting Israel while the Soviets attempted to protect their Arab allies from total defeat by the victorious Israelis.

To understand how this situation came into being, one must go back to the end of World War one. Having defeated the central powers, Britain and France proceeded to carve up the Middle Eastern territory of vanquished Turkey. The British cabinet, Churchill in particular, had been very eager to divide the territory of the Ottoman Empire with the French. These lands were rechristened Palestine, Syria and Jordan after World War One by Foreign Office officials in London who remembered their biblical lessons from Sunday school. This imperial drive, alongside the emergence of the Zionist movement for whom Lord Balfour had expressed his support in the 1917 in the Balfour Declaration, provided the impetus for a modern Jewish state.

The emergence of the Zionist movement centred on the belief that after years of mistreatment, anti-Semitism and the pogroms of Eastern Europe that the Jewish people needed a nation state of their own, one based in the ancient biblical land of Israel. These two developments saw the arrival in Palestine of gradually increasing numbers of Jewish immigrants throughout the 1930s and simmering local Arab resentment. The end of World War Two only added to the volatile situation, as thousands of desperate Jewish survivors of the Nazi Holocaust attempted to make their way on boats to Palestine. Furious at the ever expanding Israeli settlements the Arabs revolted, while the British attempted to stem the massive influx of Jewish refugees from war torn Europe. Britain now set about partitioning Palestine, in a fashion that satisfied neither side. Inter communal attacks commenced on both sides, while the Jewish extremist group The Irgun began to not only attack Arabs but also the British mandate forces, achieving notoriety with the bombing of the King David Hotel in 1946 and the deaths of many guests and soldiers. As events spiralled out of control, the war-weary British decided to pull out of Palestine in 1948, an event which signalled the fledgling state of Israel to declare its independence. So began the opening chapter of Israel's story, which would see this tiny settler state become a modern day Sparta and eventually a regional nuclear superpower…

It was all very different in 1948 as the Hagenah or Israeli forces found themselves fighting a war of survival on several fronts, as Arab legion forces converged on Palestine determined it to destroy the fledgling state. Egyptian forces under the "Playboy" King Farouk, attacked from the south towards Tel Aviv, Jordanian and Iraqi towards the west bank and Jerusalem, while Syrian and Lebanese attacked in the north. Besides a fleet of so-called "Sandwich Vans" (crudely unarmoured trucks that ran the gauntlet between settlements and Kabutism), the Israelis had only a few dedicated tanks in the form of a company of Hotchkiss H39, supplied by France and manned by eastern Europeans, or the Russians of the 82nd tank battalion, while the English company crewed recycled Sherman and Cromwell tanks obtained by various means.

1967 IDF AMX-13

The Six Day War, Sinai

This combined collection was supplemented with white scout cars, various halftracks and Willys Jeeps. The saving of Israel came from Czechoslovakia in the form of large amounts of MG 34s, Kar 98s and, critically, 25 Avia S199s (re-engined Messerschmitt Me 109s). These weapons, and the fact that the Israelis conducted hit and run raids on the more hidebound legion forces, saw them destroy their opponents piecemeal in a series of operations including Dani, Hiram and Horev. Having outflanked and routed their enemies, the Israelis were now able to add abandoned Arab equipment to their ever-expanding arsenal, a precedent that would only increase in further Conflicts. The disastrous performance of Arab forces in the 1948 conflict was to have important ramifications for the Arab states involved. In Egypt, Farouk was removed in a bloodless coup, while Syria descended into a series of short-lived coups and bloody power grabs. The many thousands of Palestinian Arabs who were ethnically cleansed from their towns and villages by the victorious Israelis were the real losers in this conflict, crossing into Jordan and, later, other neighbouring Arab countries, still clutching the original Ottoman deeds and clunky old keys to their now occupied homes. These people would not go quietly into the night, and in time the Palestinian Liberation Organisation (PLO) would become a thorn in the side of the state of Israel. Despite the armistice of 1949, all sides began to rearm for the next inevitable round of conflict. Syria obtained a number of Panzer IV J and H models from Czechoslovakia, France and Spain, along with a sprinkling of StuG IIIs, Jagdpanzer IVs and a Hummel or two. Later these would be supplemented with Czechoslovakian-produced T-34-85s and T-54s.

Operation Kadesh and the Suez Crisis

More ominously for Israel, the Egyptians, under new leader Gamal Abdul Nasser, concluded a massive arms agreement with Russia through Czechoslovakia. This involved the purchase over a number of years of 300 tanks and self-propelled guns, includingT-34-85s and SU-100s (again, made in Czechoslovakia), IS-3Ms, ISU-152s, ISU-152-Ks, BTT-1 ARVs as well as numerous BTR-152s and BTR-40s. The first MiG-15s and Il-28s were also included in this arms deal, which was signed in 1953. The inflammatory rhetoric of Nasser, who was determined to steer an independent course for Egypt, worried Israeli leaders such as Ben Gurion, and infuriated British premier Anthony Eden and the French government when he nationalised the Suez Canal, which was previously the property of the British and French government. The British and French now hatched a plan for Israel to attack Egypt and for them to intervene as peace keepers, while attacking Egyptian air bases, taking Port Said and hopefully deposing Nasser. The Israelis duly attacked, dropping Paratroopers in Mitla Pass close enough to be considered a risk to the canal, while their newly delivered AMX-13s, French M1s and first VVSS M50s stormed into the Sinai as part of Operation Kadesh, while overhead, freshly obtained Dassault Mysteres and M.D.450 Ouragans flew air strikes on the Egyptians bases, supply dumps and tank parks alongside older types such as the P-51Ds, T-6 Texans and even a few B-17s.. Many new Czech

Egyptian SA-2

T-34s and SU-100s were captured or destroyed, while even more older British Bren gun carriers, Archers SPGs and Shermans fell into Israel Defence Forces (IDF) hands for comparatively small losses. In the end, it was American offence at this underhand deal and subsequent pressure on Stirling and the threat of Soviet nuclear intervention, not to mention protest in Britain, that ended the whole scheme and allowed Nasser not only to live another day but to claim a sort of victory from the whole affair.

Middle East Blitzkrieg, The Six Day War

With the seeds of conflict firmly planted in 1956, the Israelis and Arabs spent the intervening years absorbing new weaponry for the inevitable next phase of the conflict. The IDF purchased Centurions for Britain and obtained M-48 A2s from Germany. The latest T-54A and B models became the mainstay of Syrian and Egyptian forces. A combination of events forced Israel's hand. These included Fedayeen attacks, sporadic Syrian shelling of northern settlements, but more importantly Nasser's increasingly war-like rhetoric and finally the Egyptian closure of the straits of Tiran. In what would be a massive coordinated series of attacks the Israeli air force launched 200 air strikes against nine major air bases in Egypt, from Cairo to the Nile Delta, on the morning of 5th of June 1967. These strikes were followed up with attacks on Syrian, Iraqi and Jordanian air bases. The Israeli air force was pushed to its limit with maximum use of all aircraft and turnaround times. On the ground below, IDF armour units or Ugdat broke into the Sinai, pouring up the southern, northern and central axis, with total air supremacy and mainly armed Fouga Magisters for ground attack, Israeli units took El Arish and Um Kalef their M48s,

AMX 13s and L 7 105mm armed Centurions engaging and destroying Egyptian T-34s, T-54s and even the heavy IS-3Ms. Israeli gunnery was far more accurate than that of their opponents, while their tactics and initiative in outflanking their opponents led the Egyptian commander and chief of staff General Amer to call for withdrawal to Suez. This turned into a route with hundreds of vehicles bottled up in Mitla Pass as they were pounded from the air, in scenes reminiscent of the Falaise Pocket in 1944. Egypt lost more than 800 tanks of the 930 based in Sinai along with hundreds of auxiliary vehicles.

Next to feel the Israeli blitzkrieg were the Jordanians, who had little option but to join in the fray particularly when they were falsely led to believe that the Egyptians were succeeding in the early days of the conflict. Jordanian forces proceeded to shell Israeli territory, a move they would bitterly regret. Ad hoc Israeli units, consisting of M-50s, M-51s and AMX-13s, pushed into the West Bank and found themselves up against American-supplied M47s, M48s, M-113s and British Centurions. After much heavy fighting and losses on both sides, Israeli paratroopers broke through the Lions' Gate of the old city in an M3A1 half-track, spelling the end for Jordanian control of Jerusalem and the West Bank. The IDF now turned their attention to the Golan Heights. Syrian forces, under the direction of Soviet advisors, had fortified the Golan sector with a series of defensive lines, dug in Panzer IVs, pill boxes AA guns and mine fields. At over 1000 feet above sea level and with difficult mountain track to navigate, the Golan should have been like mountainous battle of Kursk for the Israelis. Despite numerous breakdowns on these torturous routes, the Zahal units ploughed on, while overhead the IAF dropped more bombs, rockets and napalm on the Golan than Sinai and Jordan combined. As Syrian positions were isolated and eliminated one by one, the Syrian high command ordered a general retreat from the Golan as the IDF commenced operations with the taking of Kunetra. This lightning war was extremely successful for Israel as it trebled the size of its territory it controlled, while proving its military prowess was capable in subduing all her enemies. Israeli forces now paddled in the Suez Canal, walked the ancient streets of Jerusalem, and enjoyed the panoramic vista into Syria from the newly acquired heights of the Golan. The belief was now held that her Arab opponents would not be ready to renew their attacks until the late seventies. That said, the IDF constructed the Bar Lev Line along the Suez Canal, fortifications that would soon be tested in the long tit-for-tat engagements and shelling's during the War of Attrition. On the Golan, the Zahal would prepare dug-in bunker revetments for their Centurion or Shot tanks, practising their gunnery on set targets in the basalt valleys below, and constructing anti-tank ditches and mine fields to channel any enemies into designated kill zone. Of these preparations, only those on the Golan would prove vital in the next conflict to come.

1973: The Yom Kippur war

On the sixth of October 1973, Egyptian forces poured accross the Suez canal in K-61, PTSM-2 and BTR-50 amphibious vehicles and on rapidly deployed pontoon bridges such as the PMP series. The evening before, Egyptian frogmen had filled nozzles supposed to release liquid fire onto the canal, with quick setting concrete. On landing on the Israeli side of the canal, Egyptian engineers quickly set about washing away sections of the massive sand ramparts with large power hoses, creating gaps for vehicles to drive through. The Bar Lev fortifications were only lightly manned during the religious festivities. The first troops to cross carried large suitcases containing wire guided AT-3 Sagger ATGMs. These simple, hollow-charge weapons burnt through the armour of MBTs, exploding the ammunition or fuel inside, or in the case of the M48, setting on fire the turret lubricant, a fact that was ratified by the IDF after the war. Further back, a vast array of areal defences sprang into action, including

Captured Egyptian SU-100

the latest ZSU-23-4 AASPGs, SA-6 Gainful and SA-7 Grail which were supplemented by older systems such as the ZSU-57, SA-2 and SA-3, thus creating a defensive umbrella and effectively neutralising the IAF air supremacy. In less than two days, the IAF would lose more than forty Skyhawks and Phantoms to this integrated air defence, leading to the suspension of airstrikes over the canal zone. IDF armour units that charged to the rescue towards the overrun Bar Lev met a wall of lethal Sagger and anti-tank fire, leading to the obliteration of one armoured brigade. Meanwhile, on the Golan, masses of Syrian armour began to rumble towards the Purple Line and Israeli positions. In the vanguard of this armoured colossus were T-55s and T-54s with KMT mine rollers, clearing route through Israeli minefields, followed closely by MTU-55 and MTU-20 bridge layer tanks to span over the anti-tank ditches

Egyptian T-62 in 1973 Yom Kippur War

Egyptian SU-100 from the 1956 Suez campaign

carved out by Israeli engineers. A mix of older SU-100s, BTR-152s, T-54ARs, T-55s and newer BMP-1s and T-62s followed in close pursuit. Under massive pressure on both fronts, the Israeli government briefly considered resorting to the use of nuclear weapons, until they realised that the Arab momentum was slowing down. Critically, the 7th Armoured Brigade and 188th Barak Brigade were managing, despite massive losses, to blunt the massive Syrian onslaught with as little as 200 Israeli Centurions, facing over 1200 Syrian tanks and APCs, not to mention artillery and roving RPG teams. When Syrian armour did actually manage to push forward, it was held by reserves, and units were prevented from reaching the River Jordan by renewed, close air support attacks which utilised new ECM pods. By the 8th and 9th of October, the Syrian advance was checked, the Valley of Tears was littered with burnt and destroyed Syrian tanks and vehicles and the IDF was ready to go on the counter offensive. On the 10th of October, the Israeli forces gradually began to push back the now

drained and defeated Syrian units in the area. Even though Syrian losses were staggering, they had fought well and conducted their withdrawals with considerable skill. The intervention of Iraqi and Jordanian units at this stage was of no use as they were quickly ambushed and destroyed, with only 100 of their combined vehicles left on the battlefield. On the Sinai front, the Egyptians were under pressure to go on the offensive and relieve the pressure on their Syrian ally, the Israelis had not been idle either, detecting a gap between the Egyptian 2nd and 3rd Army which could be exploited. The Egyptian forces struck on the 14th of October, leaving their air umbrella and pushing forward in a series of predicable waves, resulting in the largest tank battle in the region since El Alamein. Egyptian tank brigades were engaged by IDF tanks in hull down positions with superb gunnery, and were then outflanked. New American TOW missiles were also deployed to good effect, as were renewed airstrikes. By day's end, the Egyptians had lost over 700 tanks and the canal was ready to be crossed. Operation Gazelle commenced on the night of the 15th of October with hauling and across the Sinai and the Suez the following night of the Gilowa pontoon bridge allowing Ugdat Sharon and Magen to break out of the bridge head area and attack the 2nd and 3rd armies respectively. Savage fighting ensued as Israeli forces eventually reached the outskirts of Suez City in an attempt to entirely cut off the 3rd Army. It was at this point that the Soviets were threatening direct intervention, as not only were their Arab allies now in real danger of total defeat if things were allowed go unchecked, but their political and military prestige was also at risk. After a series of cease

Captured by IDF in 1967, ex Syrian armor

fires and the deployment of UN observers, both fronts stabilised. Under Sadat, Egypt made peace with Israel and the Sinai was returned to Israel, in a move that would ultimately cost Sadat his life. On the Syrian front, no such agreement was reached: a state of war exists to this day. Indeed, many of the lessons of the Yom Kippur War would be acted upon by Israel and Syria in their next conflict in Lebanon in 1982. In an attempt to bolster or create a new Lebanese allied state while destroying the PLO, the IDF would take an Arab capital city for the first time. The IDF would deploy reactive armour tiles on their Centurions, M-48s and M-60s to deal with Saggers and other modern ATGMs. Experience in the Golan would see the development and deployment of the first Israeli built Merkavas but in the streets of Tyre and Beirut. While in the air drones, advanced ECM, shrikes, stanard arm missiles, cluster bombs and LGBs would be used to destroy Syrian SAM sites. To this day Israeli forces strike at Syria's and her late set proxies Hezbollah in an attempt to hinder the development and arming of a new opponent, while Syria itself reels from brutal a civil war in the latest stages of the Arab Israeli conflict, this and the Arab spring are tales for another volume.

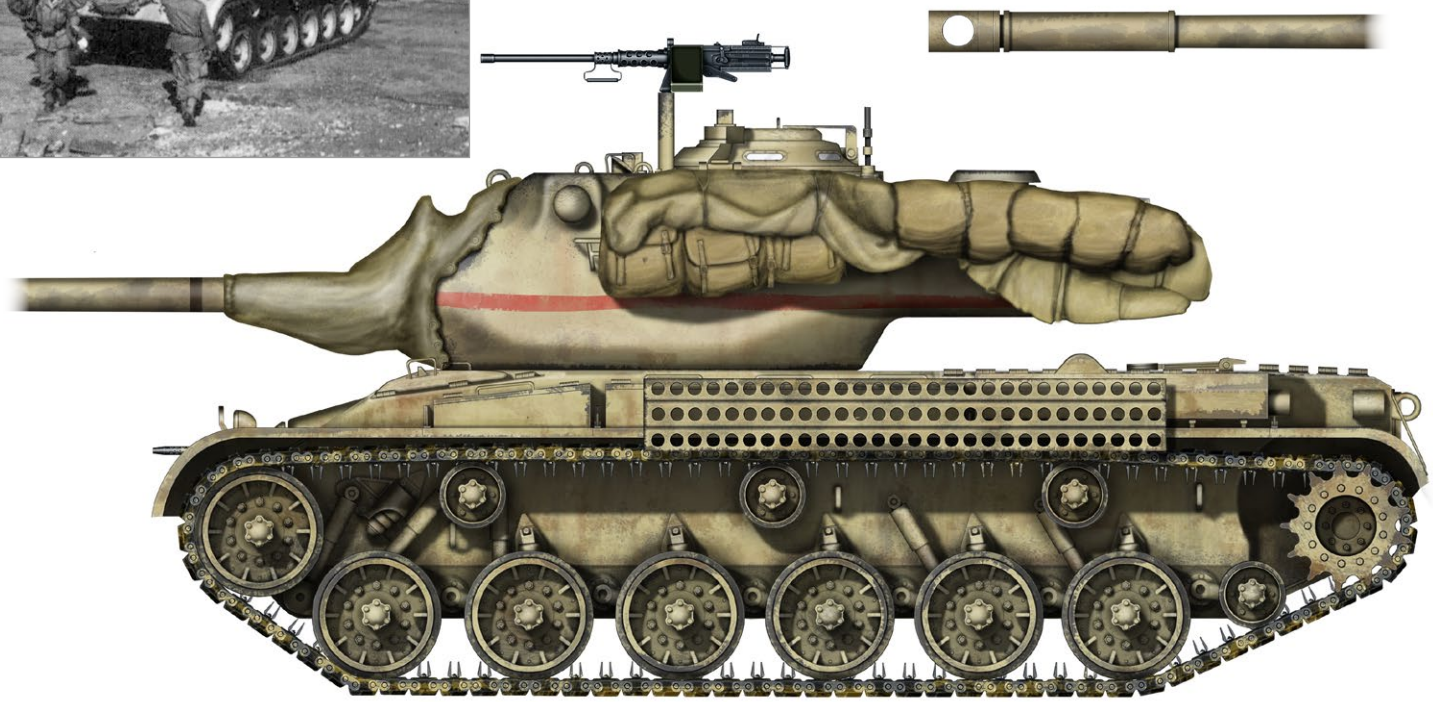
PT-76 amphibious tanks, a Sherman and an AMX 13 of Egyptian Army are awaiting rail transport along with a BTT-1 ARV.

2.1
BRITISH & FRENCH VEHICLES IN SUEZ CRISIS

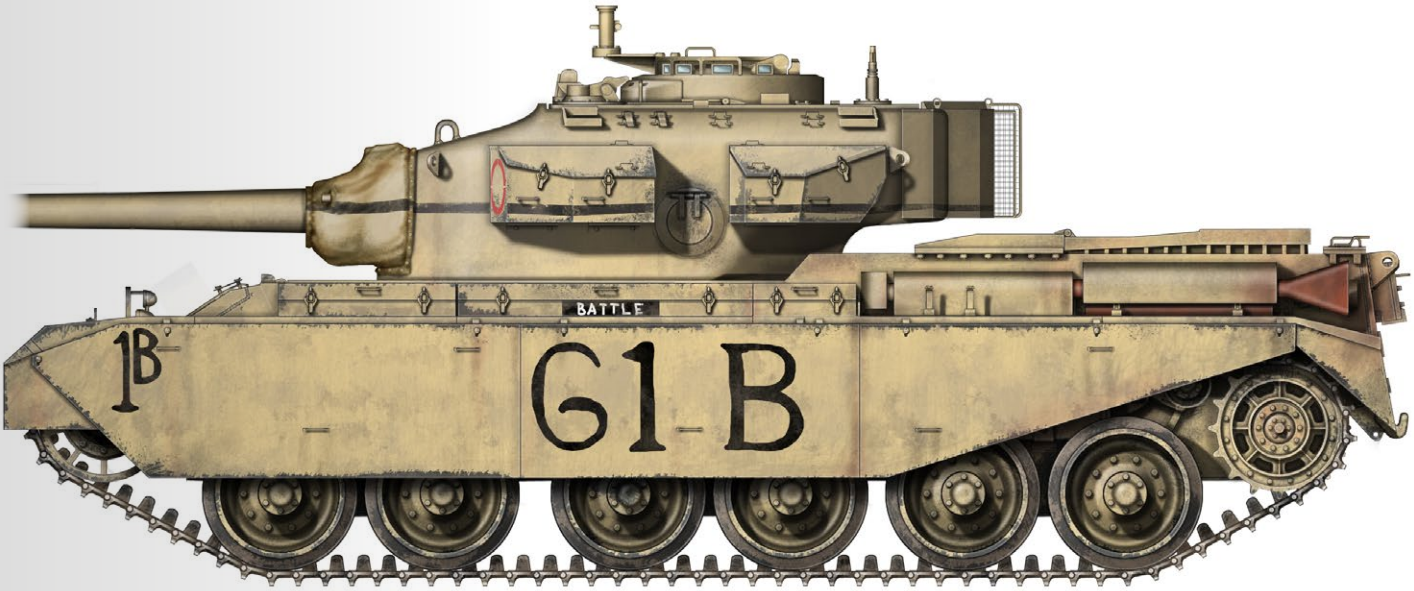
Anglo-French markings and camouflage of the Suez campaign 1956

As main instigators in this plan to retake the Suez Canal and topple Nasser, British and French forces deployed not only scores of air assets but some of the best of their fighting forces in terms of British paratroopers and French Foreign Legion units. Both countries deployed considerable armoured units to operation Musketeer, originally named Hamilcar hence the large white capital "H" on turret tops and smaller ones on hull sides of some vehicles, it is spelt with an "A" in French leading to a change of name. Both countries AFVs were painted sand with a distinctive thin black turret stripe, various unit markings and in many cases extra fittings such as barbed wire and metal decking. A wide range of vehicles such as the M47, AMX-13, LVT-4 Alligator and British Centurion were used in the fighting around Suez and port Said.

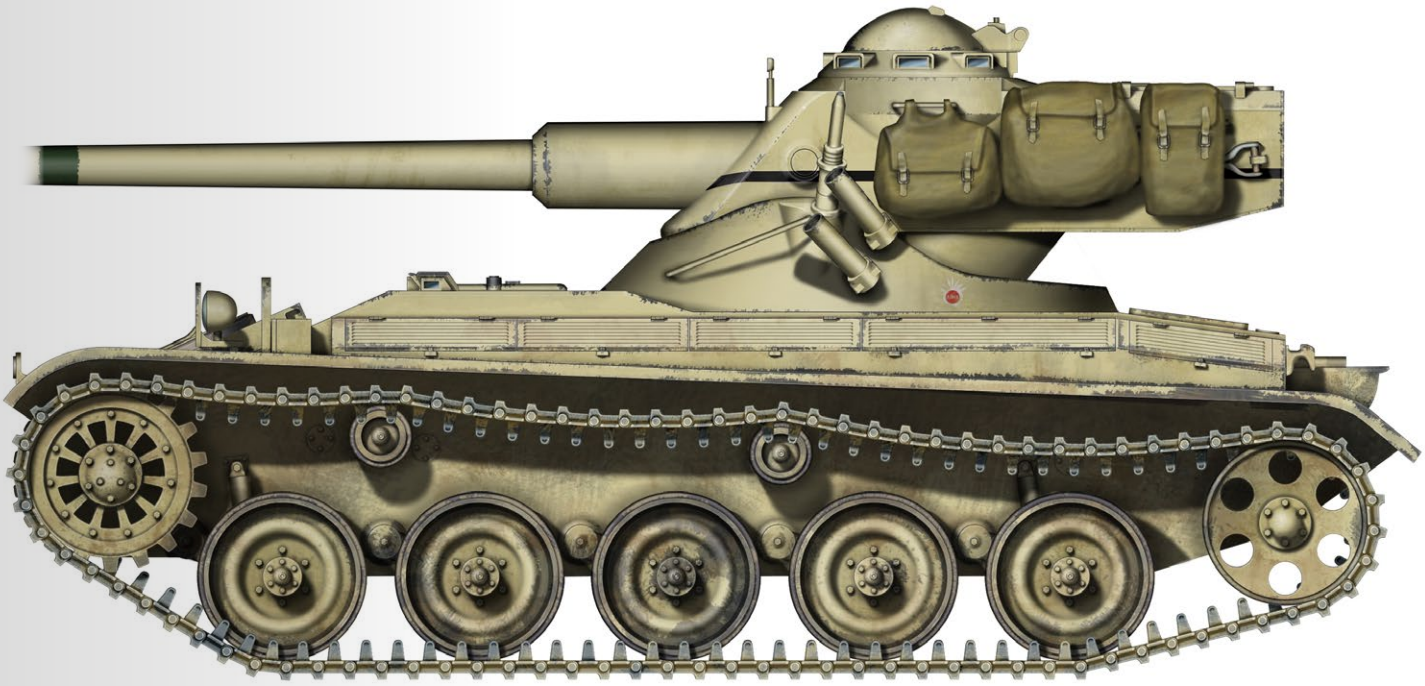
A French M47 medium tank of the 8e Regiment de Dragons disembarks during the invasion of Suez in 1956, of note are the side mounted sand shields and crew stowage desert extras that came from long experience in the Algerian conflict.



A British army Centurion tank
of the 6th Royal Tank Regiment, these vehicles were landed in Port Said by HMS Puncher, where they linked up with French paratroopers.



A French AMX-13
of 2e REC 2nd squadron in Suez in 1956, these tanks carried plenty of stowage and a thin black ID stripe.



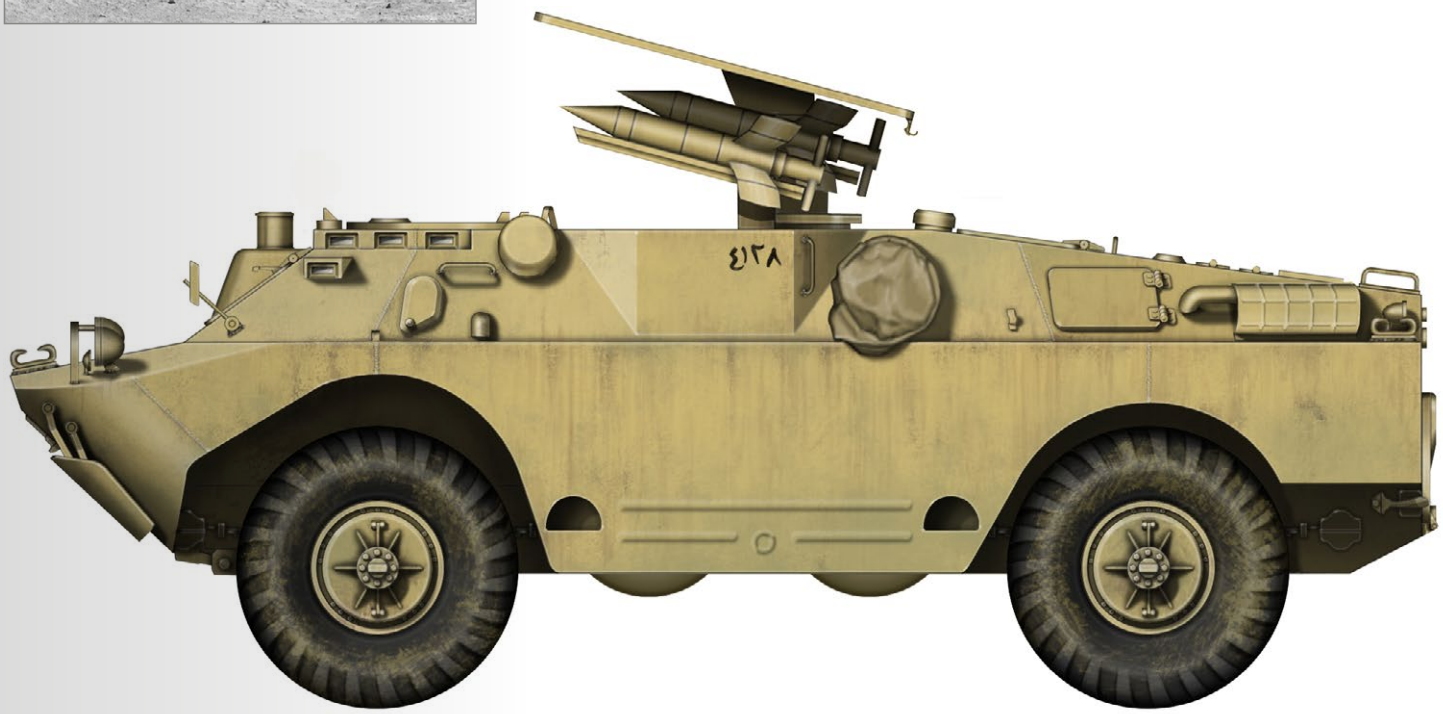
2.2 EGYPTIAN VEHICLES

Egyptian Army colours and markings

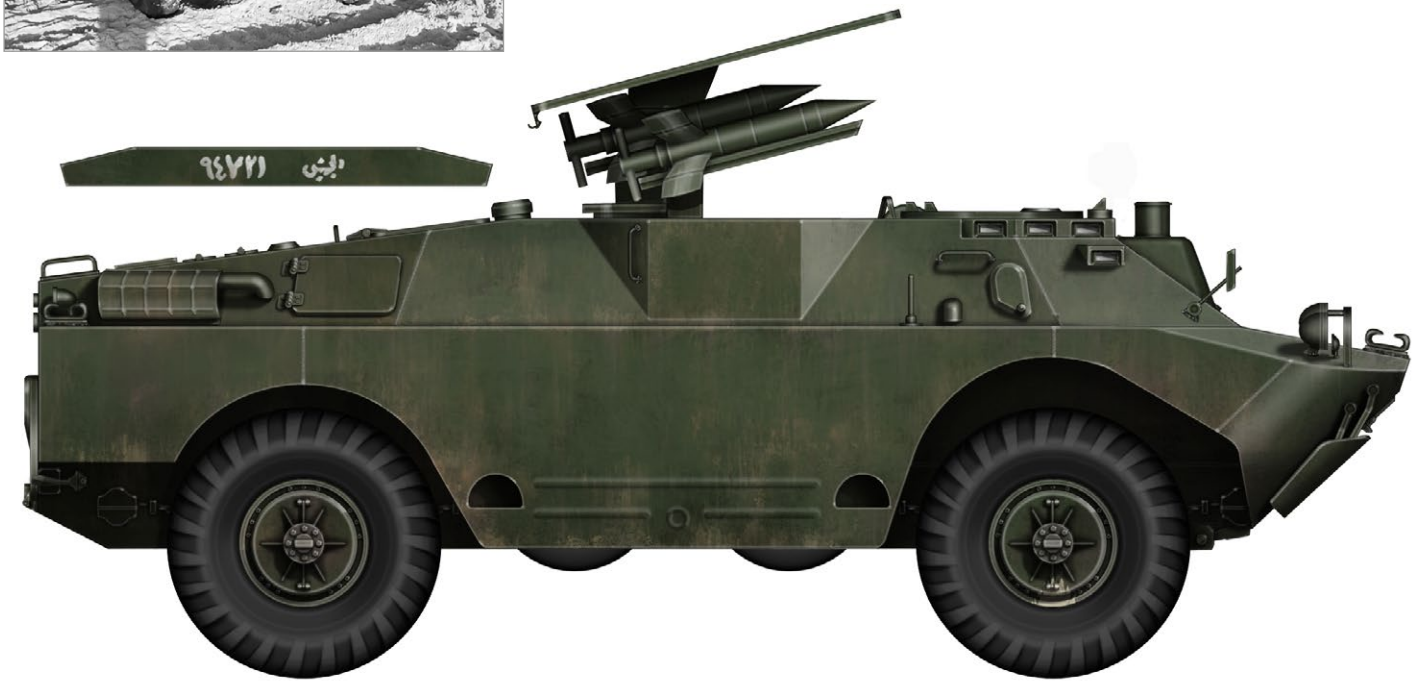
The few armoured vehicles from the 1948 campaign such as the Vickers Mk VIB, M22 Locust and assorted Bren gun carriers and armoured cars tended to be painted plain Sand or British Army Green with Egyptian roundels. The delivery of large amounts of Soviet and Czechoslovakian tanks in the mid-1950s saw a standard overall sand finish with black Arabic numbers often accompanied by black silhouettes of various wild animals painted for parades. The 1970s saw the introduction of a broad range of different camouflage patterns which were used on tanks and vehicles of the Yom Kippur war. The new schemes could consist of three colours such as pale brown sometimes nearly coffee in colour, light green over sand. Other patterns include green and sand, and brown and sand. In terms of patterns there were many varieties. Over these colour options could be added white recognition stripes that were used by units in the early stages of the Sinai campaign, consisting of a set on each mud guard, while others were added to the upper casemate of SU-100s or turrets of T-54s, T-55s and T-62s. The other important detail to note was the pressed metal Egyptian army licence plate added to the front right hand side mud guard and left rear.

An ex Egyptian Bren gun carrier
these useful armoured run were left by the British in large numbers and saw action in the 1948 and 1956 conflicts, with a considerable number captured by the IDF in the Sinai in 1956.

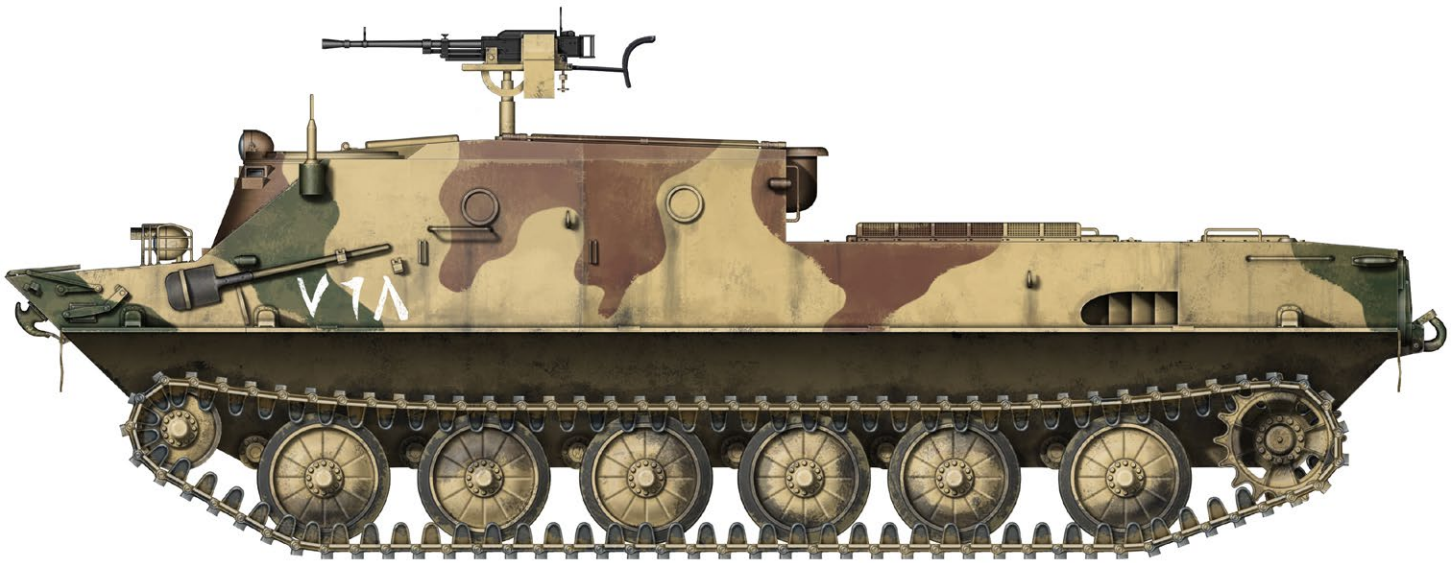
An Egyptian 9P133 Malyutka (Sagger)
launching version of the BDRM-2. These vehicles were critical alongside the standard man portable variants and the RPG-7s in destroying or damaging nearly 200 of Mendler's 252nd Armoured Division tanks as they charged into Egypt's fresh gains over the Suez canal on the 7th of October.



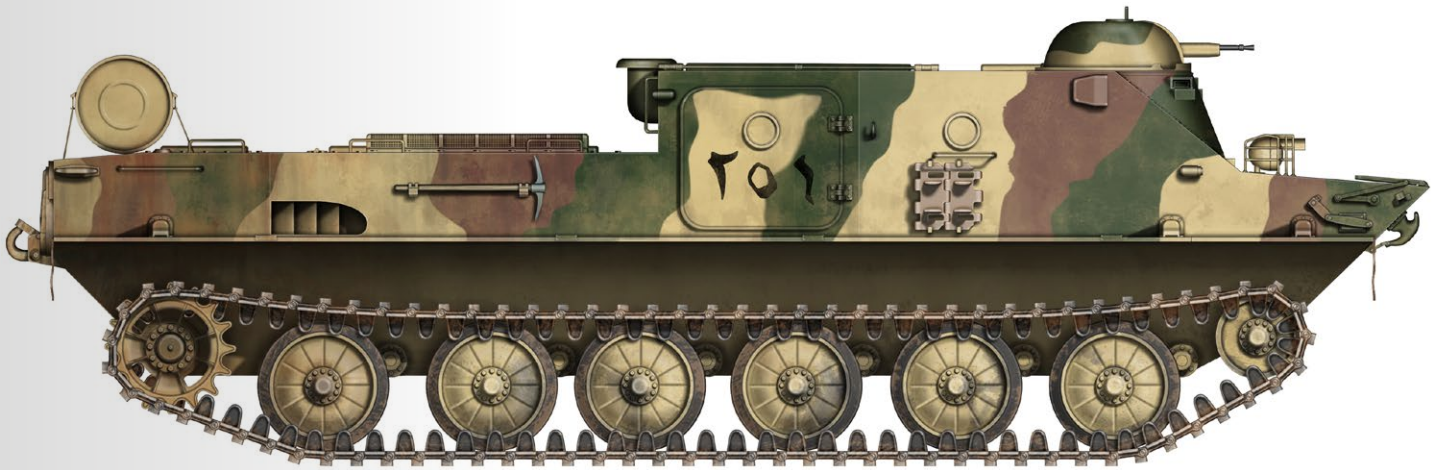
This Egyptian 9P133
retains its original Soviet green camouflage coat, of note is the clear view of its six Sagger wire guided missiles which can be launched from the vehicle or from outside allowing the launch crew a better view of targets and flexibility in quickly moving to cover.



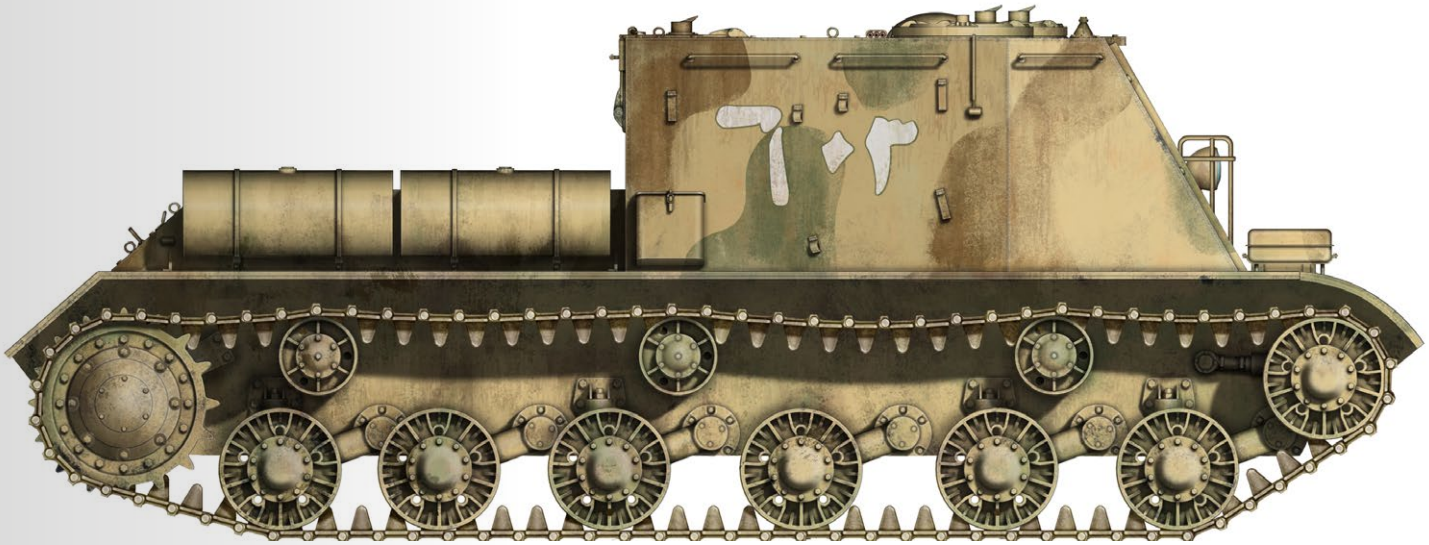
An Egyptian BTR-50PK
this simple uncomplicated boxy APC has an old World War Two Soviet SG-43 machine gun mounted to the front of the upper hull.



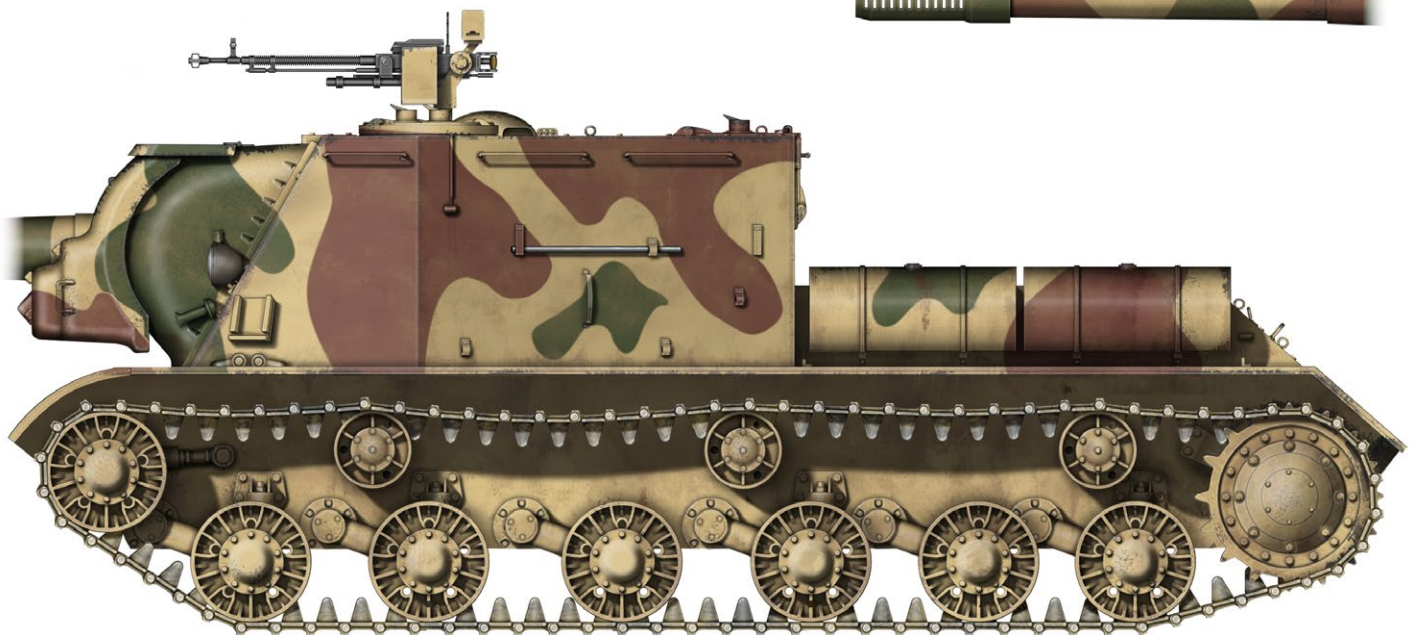
An Egyptian OT-62 TOPAS
amphibious armoured personnel carrier. These vehicles were used to cross the bitter lakes during the early stages of the Yom Kippur war.



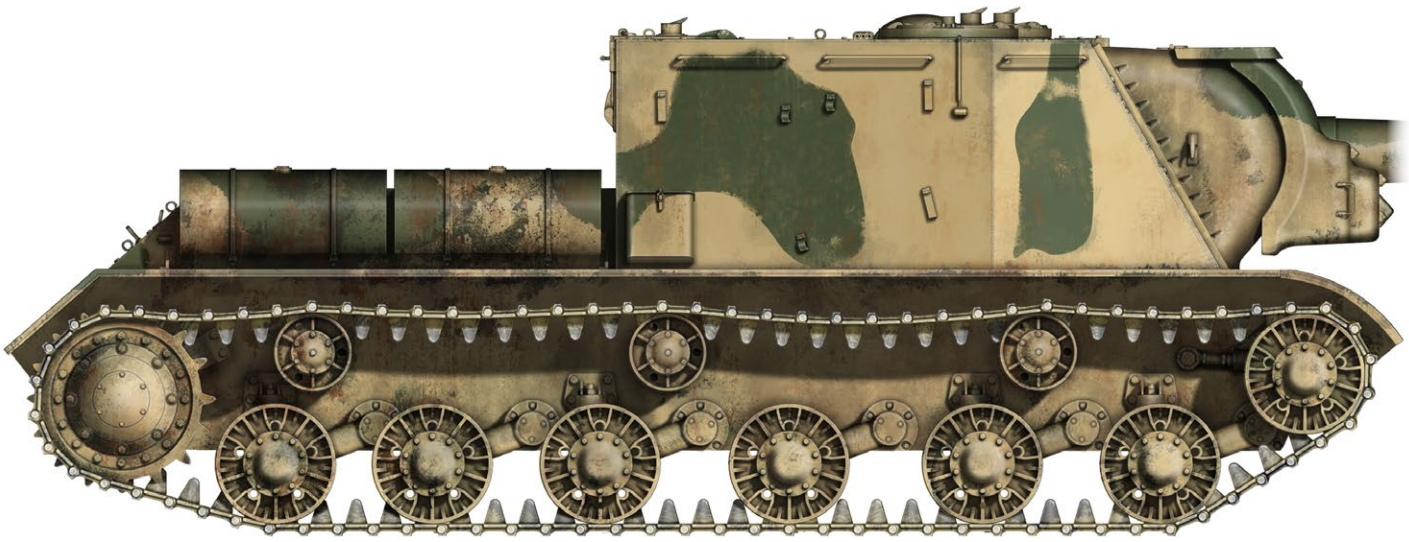
An Egyptian ISU-152K command vehicle,
this simple conversion of the standard self propelled gun involved removing the main gun and installing extra radios within the casemate. The Egyptian army was still making use of these old vehicles in 1973.



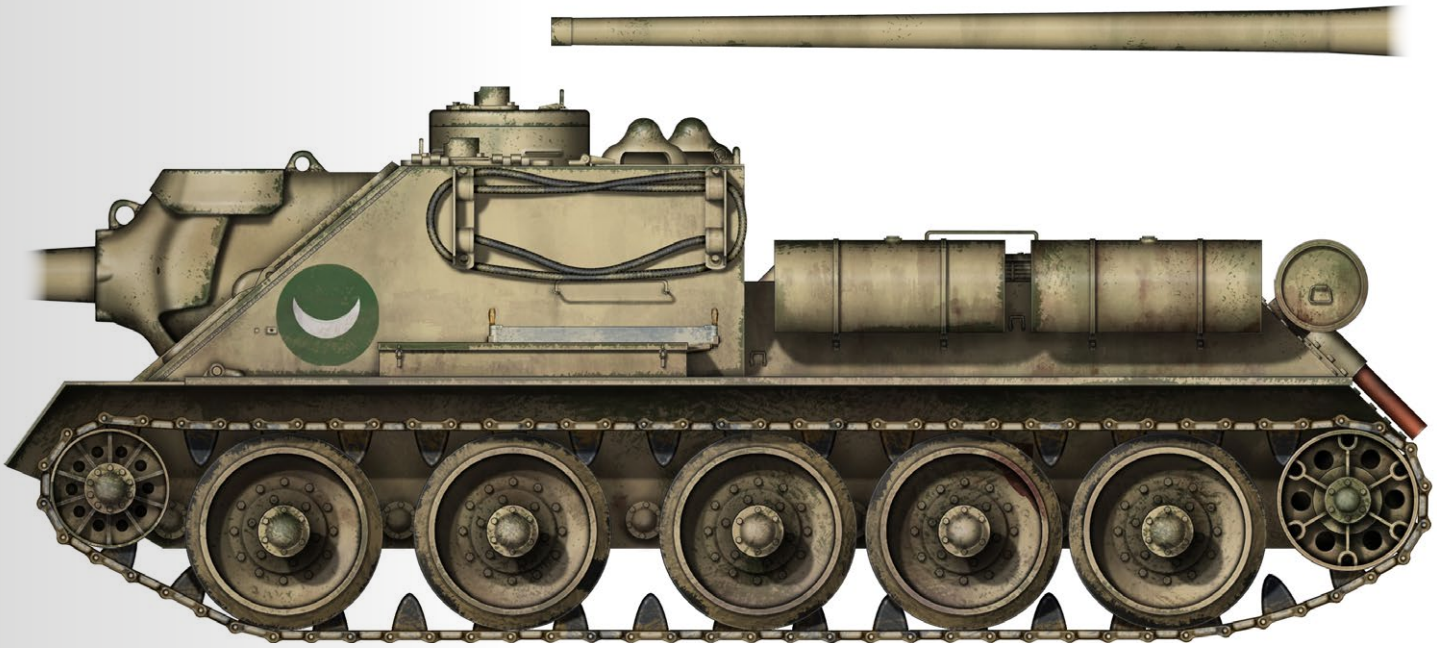
This Egyptian ISU-152
wears a three tone camouflage scheme a sizeable number of these large SPGSs were encountered by Israeli forces in 1967 and 1973, despite its age and lack of effectiveness in modern armour battle.



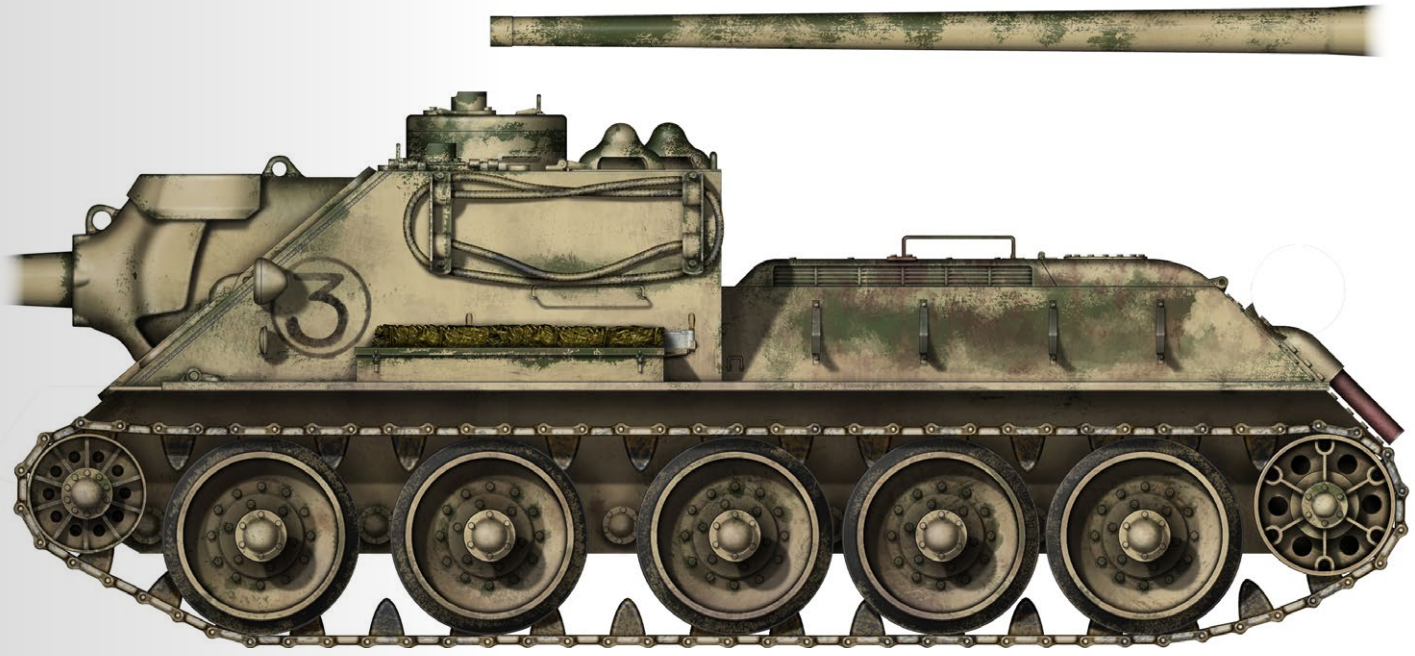
An Egyptian ISU-152,
this particular example was dug in along the Suez Canal to provide artillery support alongside large amounts of towed artillery pieces.



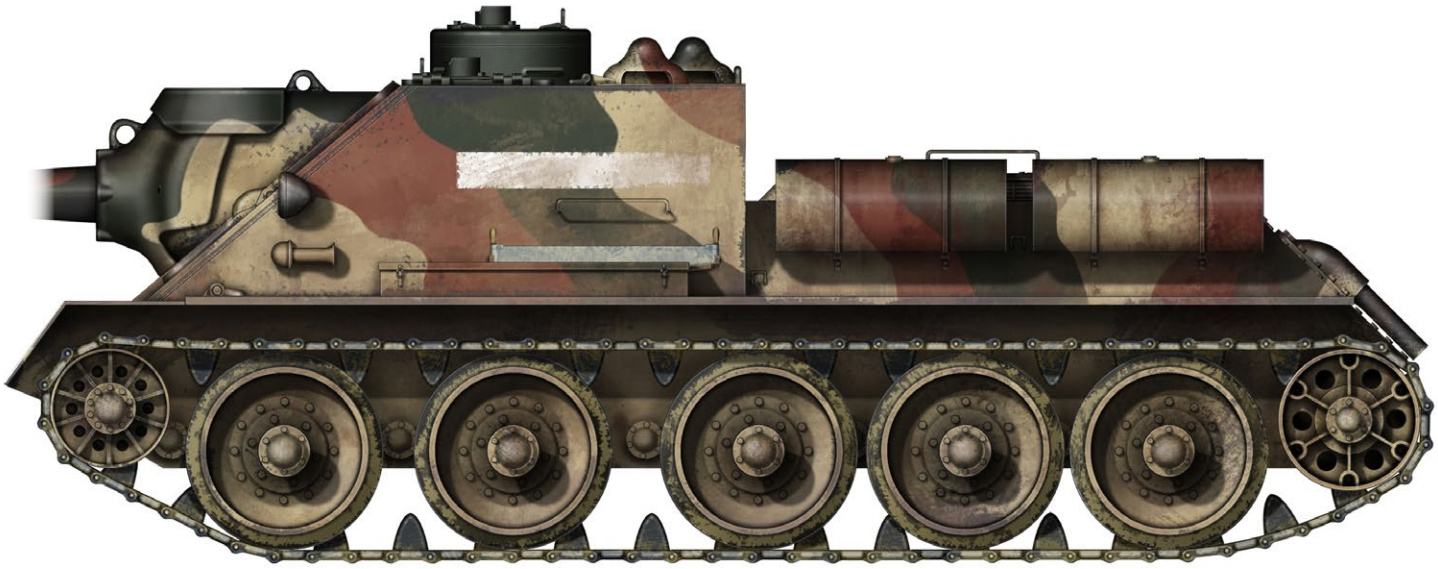
An Egyptian SU-100
sporting the early crescent moon markings of the Nasser period. This particular vehicle was captured by British paratroopers in the Suez Canal area in 1956.



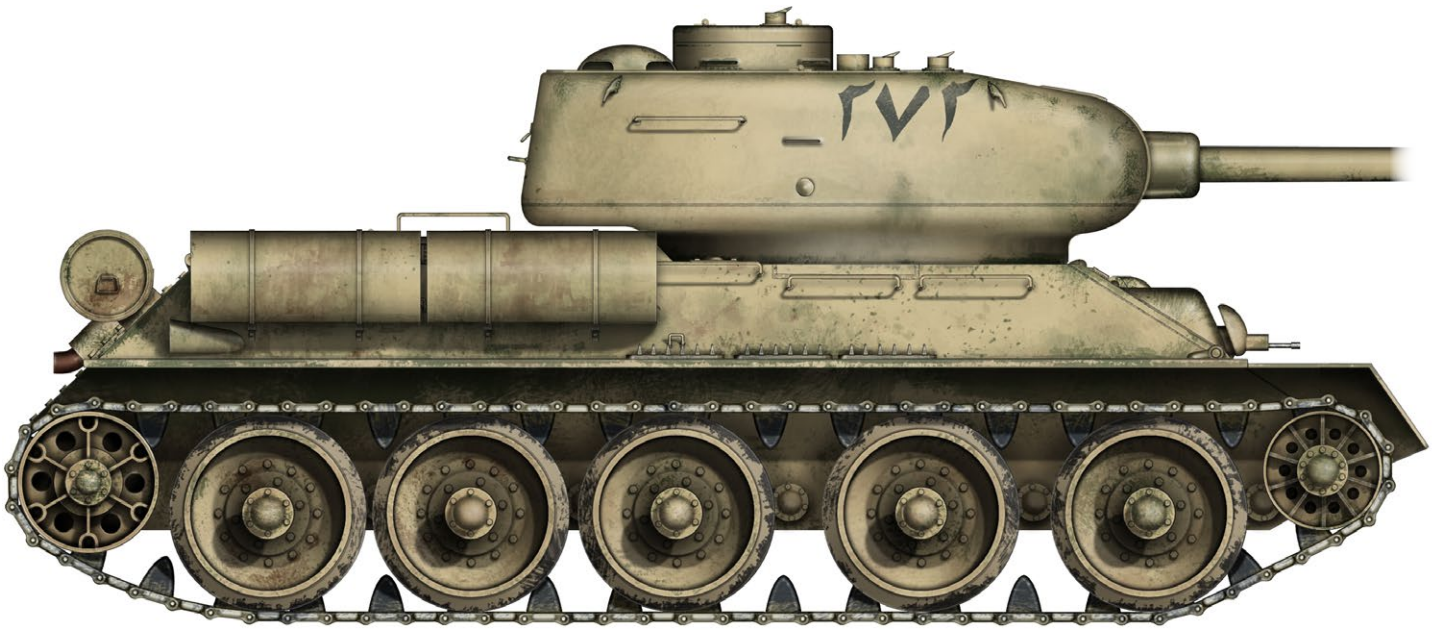
This Egyptian SU-100
was captured by British forces in Port Said during the Suez Champaign in 1956 or operation Musketeer as it was called. The number 3 may well be a reference to the 3rd Battalion Parachute Regiment who took part in part in the fighting around the Port Said area.



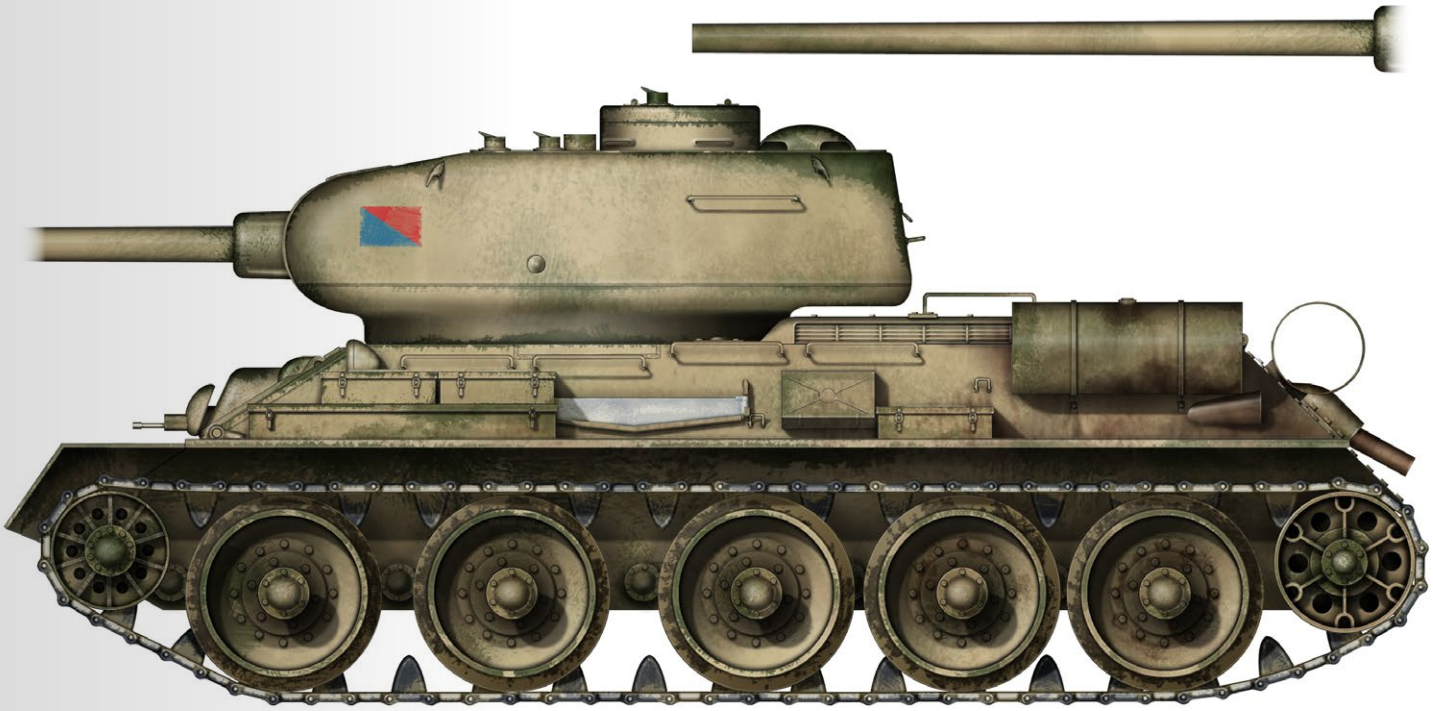
Another Egyptian SU-100
with white recognition markings on the hull side; these were repeated on the mudguards and front hull. Numbers of these tank destroyers were engaged around Chinese farm.



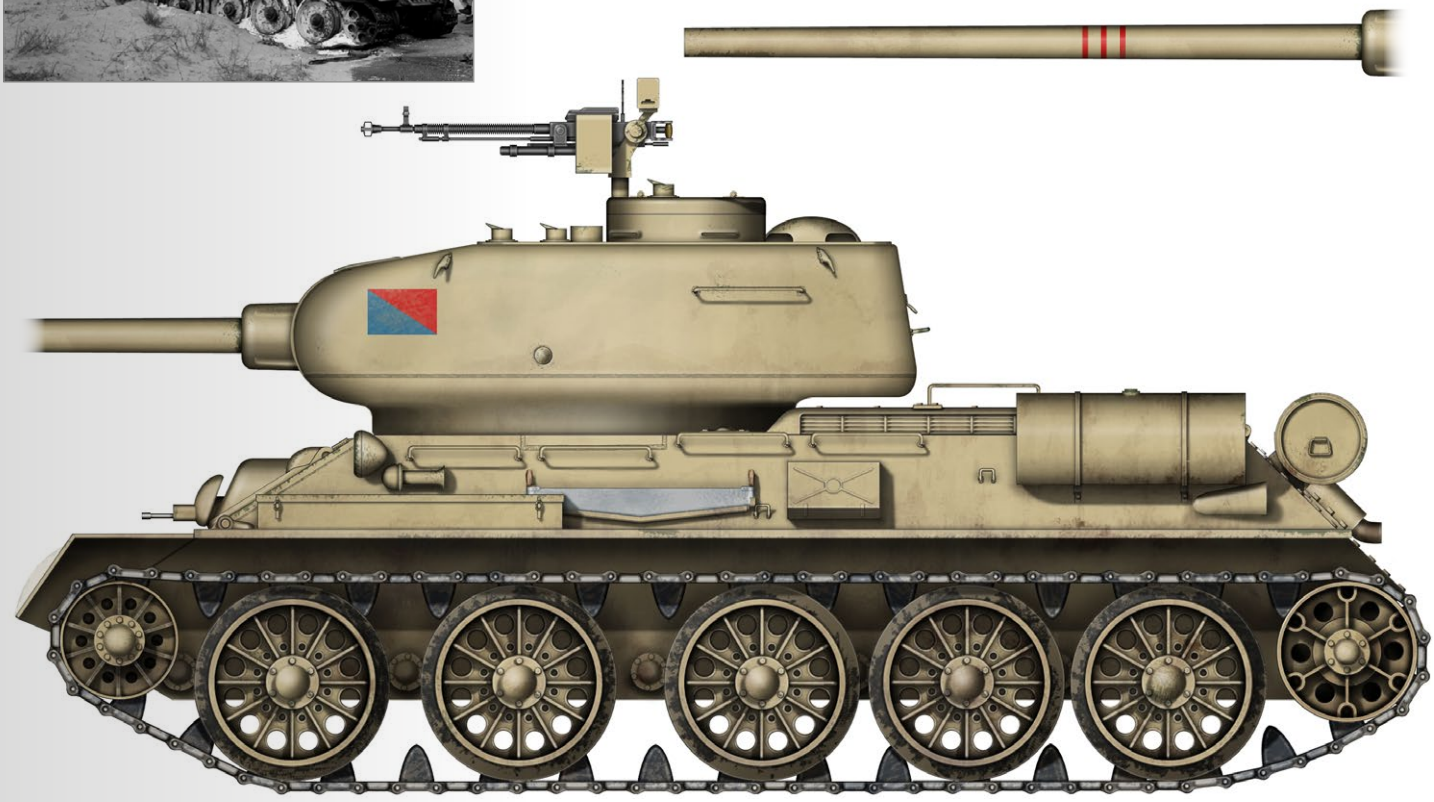
An Egyptian T-34-85
this time only bearing the simple turret numbers 272. While Czechoslovak-built T-34s were well represented in the Egyptian arsenal, Egypt received further delivery of composite turret, angle jointed and flat side turret variants from the Soviets.



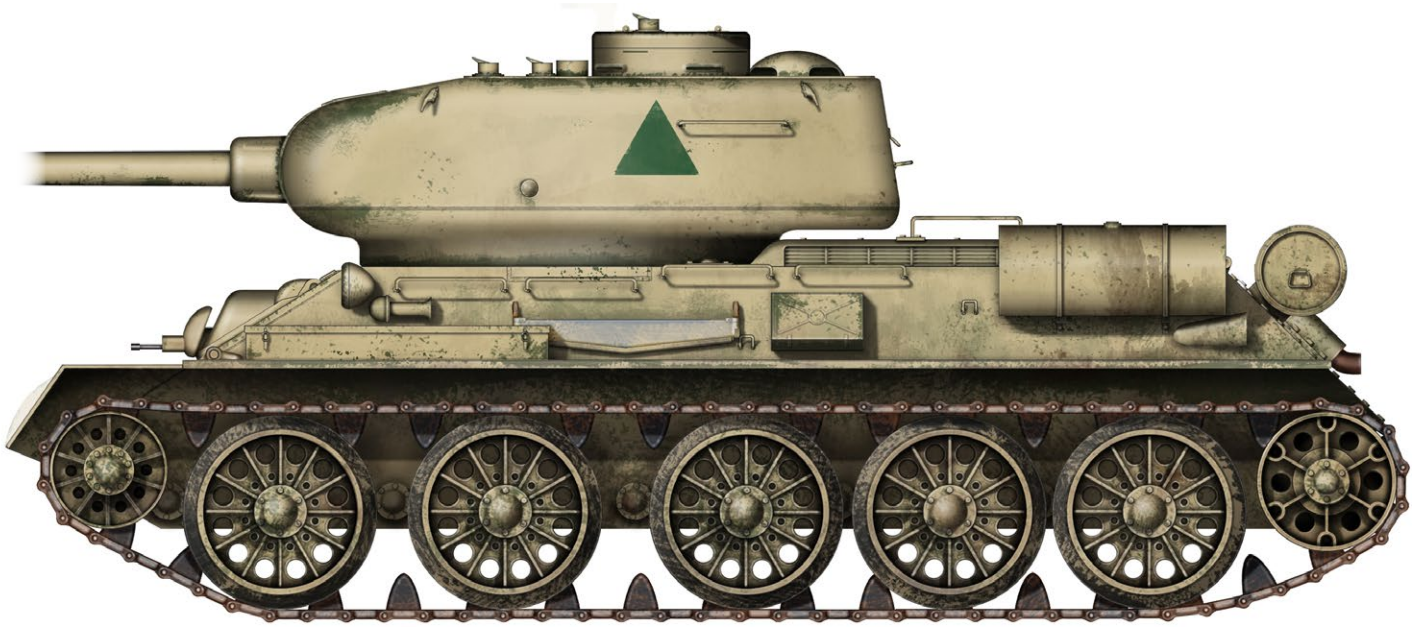
This Egyptian T-34-85
is one of a small number that like the Syrians mounted a DShK 12.7mm AA gun above the commander's cupola, the Egyptian mount involved a smaller circular hatch and MG stand.



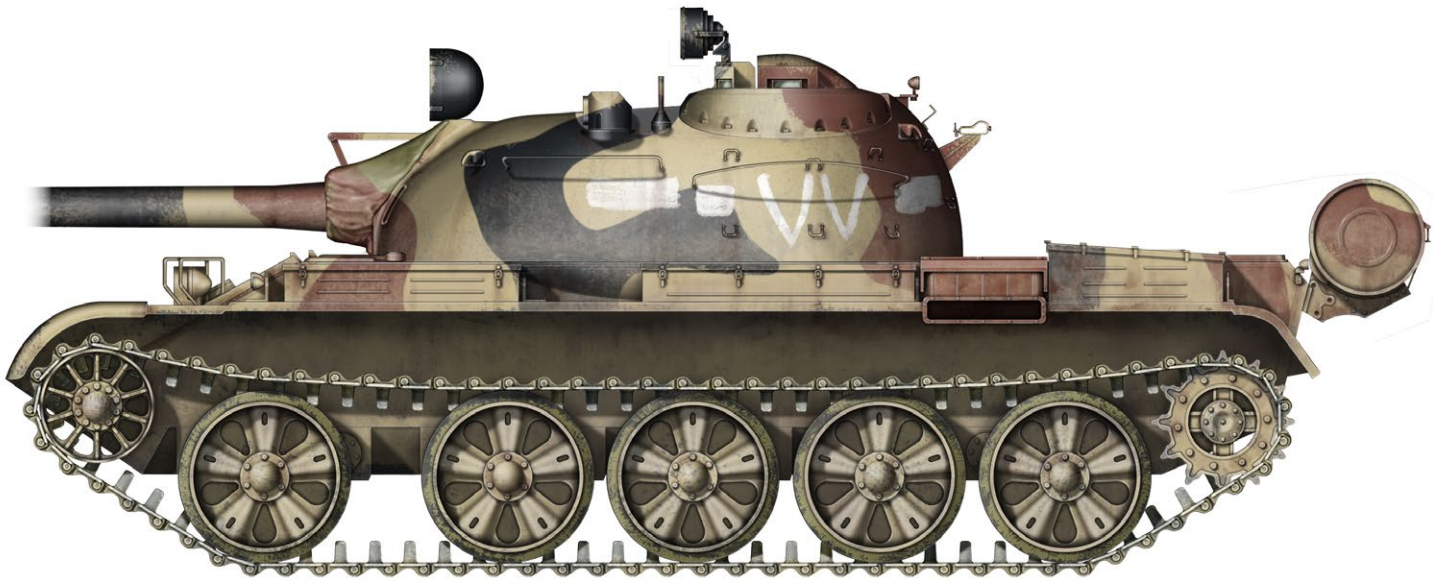
An Egyptian T34-85
as deployed to the Sinai desert in 1967. The Red and Blue/Green rectangle flash on the turret is that of the Egyptian Armoured Corps and was seen on many tanks of this period including T-54s and IS-3Ms.



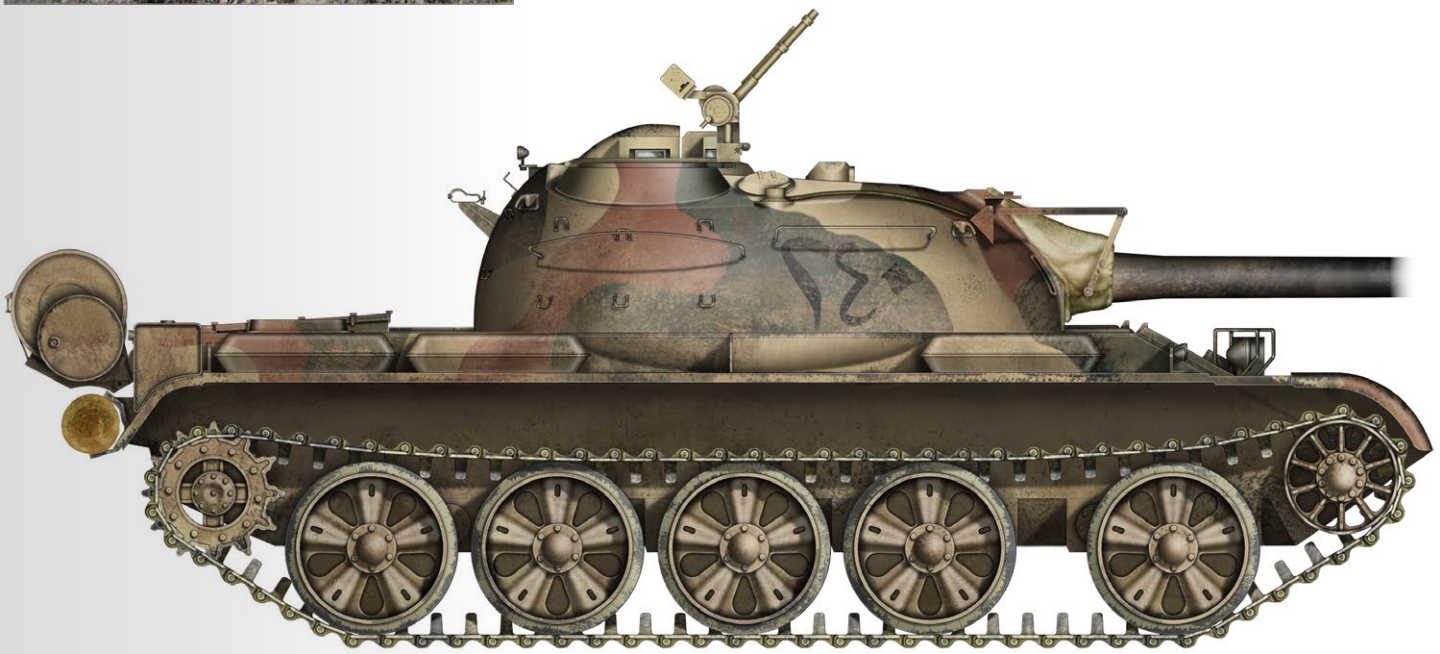
This Egyptian army T34-85
carries large green triangular sub unit markings such as these, circles and diamonds were also not uncommon. This tank is one of a large number captured by the IDF in the Sinai in 1967.



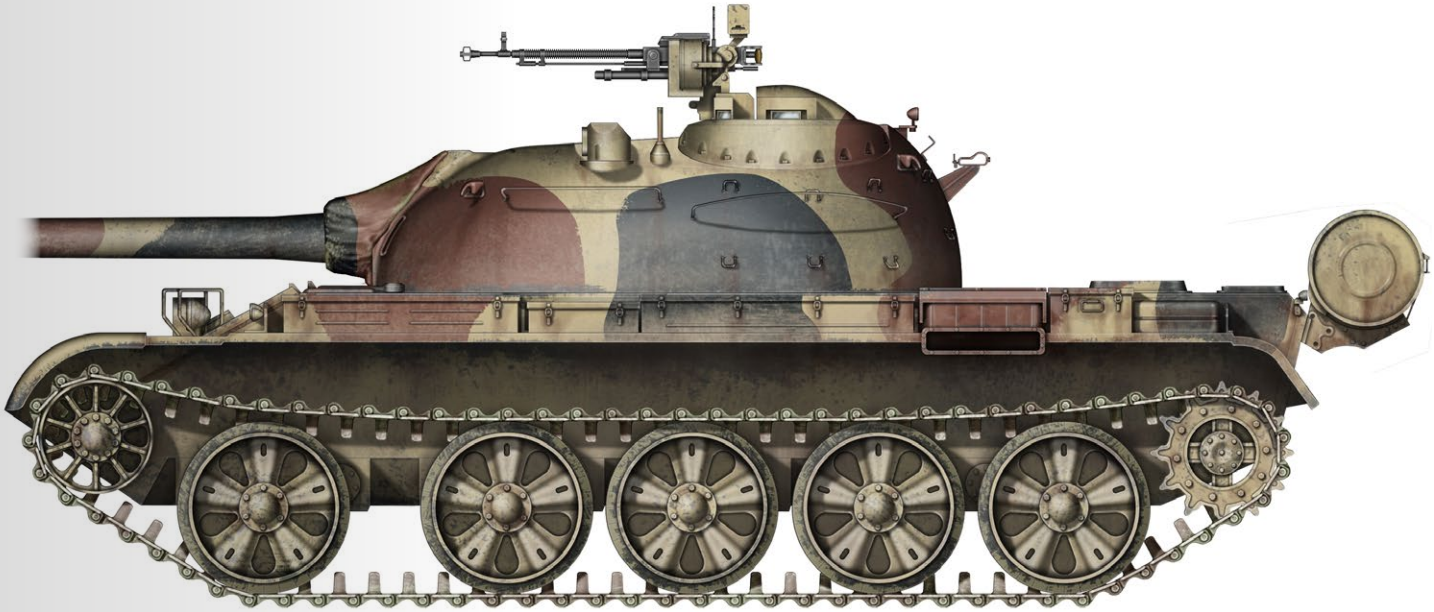
An Egyptian T-55A
a variant that lacked the DShK 12.7mm machine gun, a shortcoming rectified in later models. This vehicle wears the standard recognition markings for the October war.



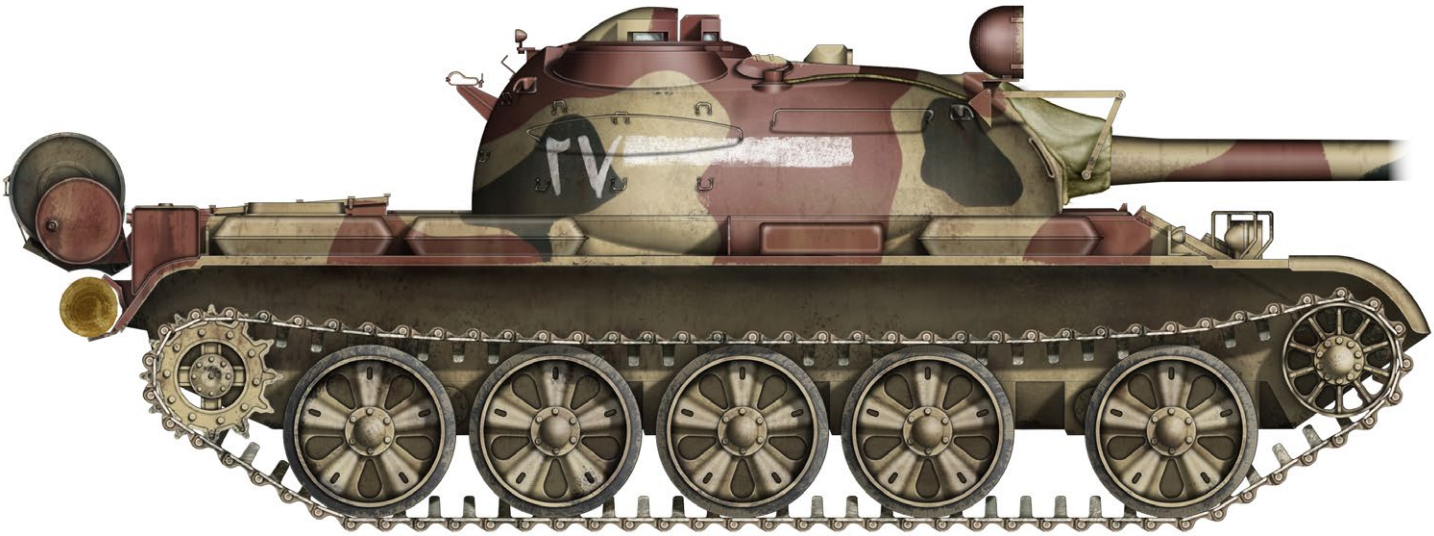
This T-54 turret number 240
was found abandoned by Israeli forces dug in around the Canal Zone.



One of a large number of T-54 mod. 1951
used by Egyptian forces during the Yom Kippur war and subsequently captured by the IDF, most of these tanks were pressed into Israeli service, a number sent to the USA and a small amount passed on to Lebanese allies.

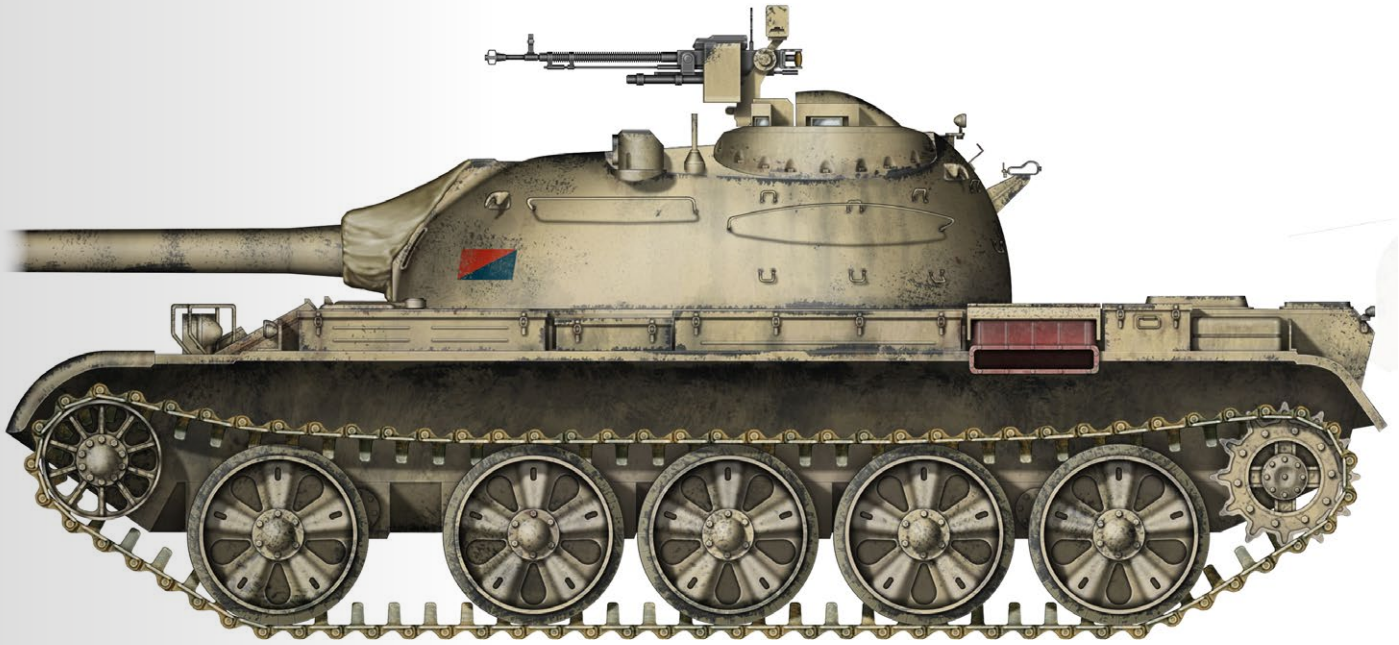


An Egyptian T-54B
as seen in footage of Egyptian forces during the Yom Kippur war, of note are the turret recognition markings, extra rear fuel cells and thin white unit markings on the barrel fume extractor.



This Egyptian T-62 Model 1966
with late engine deck and early turret was captured intact by Israeli forces in the Sinai, one of a number lost by the 25th armoured brigade in their desperate battles on the Sinai front.

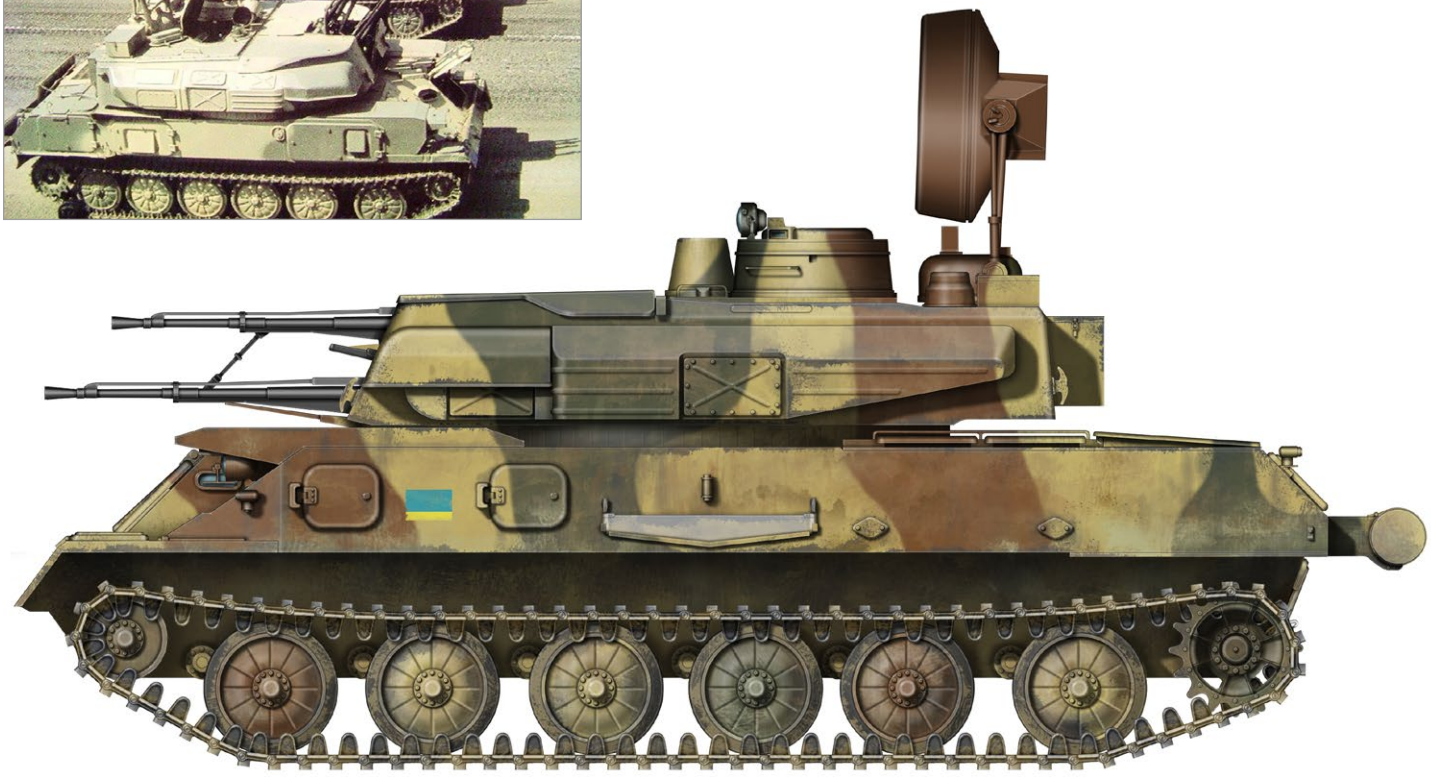
Egyptian T-54 as deployed in the Sinai in 1967,
a part of large batch of weapons provided by the USSR to Nasser mainly through Czechoslovakia.



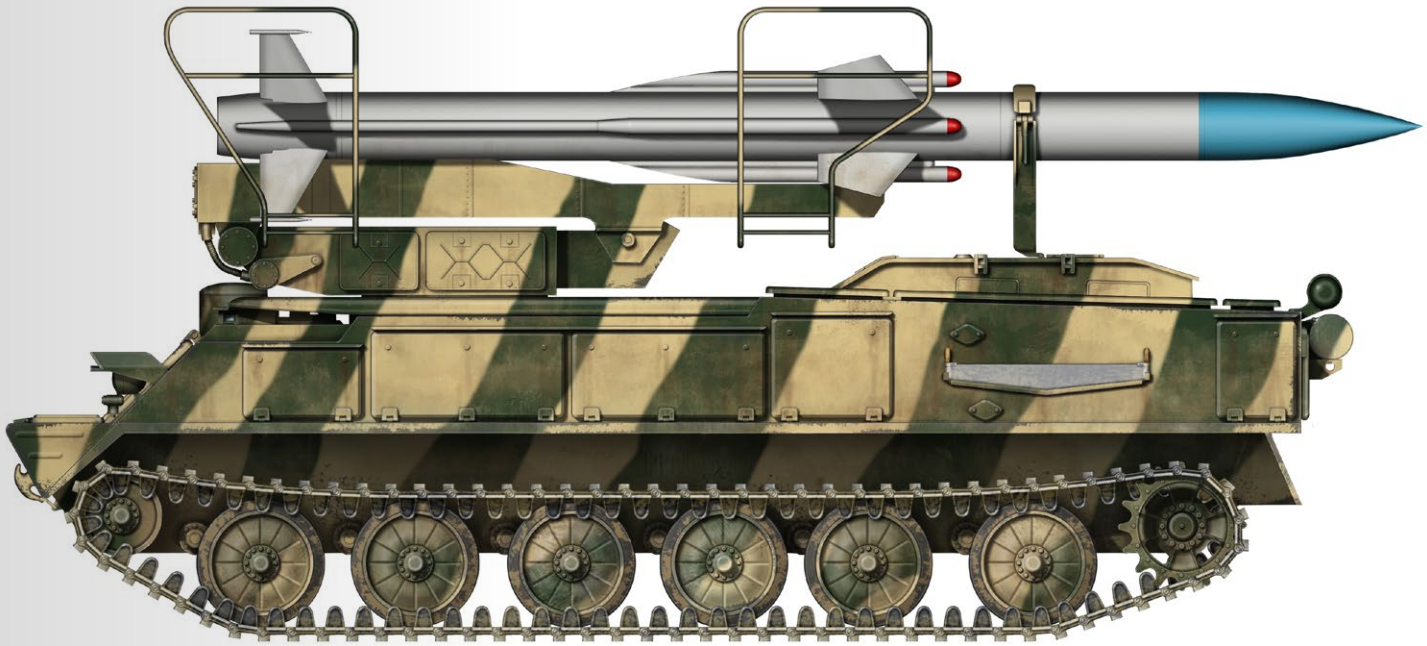
An Egyptian T-62 model 1966
which features an early turret but later hull type, large black Arabic numbers as seen on the turret were common on T-62s, T-55s, T-54s and BTR-50s of some Egyptian units of the period.

An Egyptian ZSU-57,
this SPAAG was captured in 1967 bearing a parade marking of stamping elephant, also found on some T-34-85s. Early Egyptian vehicles from this period can be seen with rhinos, warthogs on T-34-85s, and diving hawk symbols on SU-100 and IS-3Ms, as pointed out by Ed Okum.

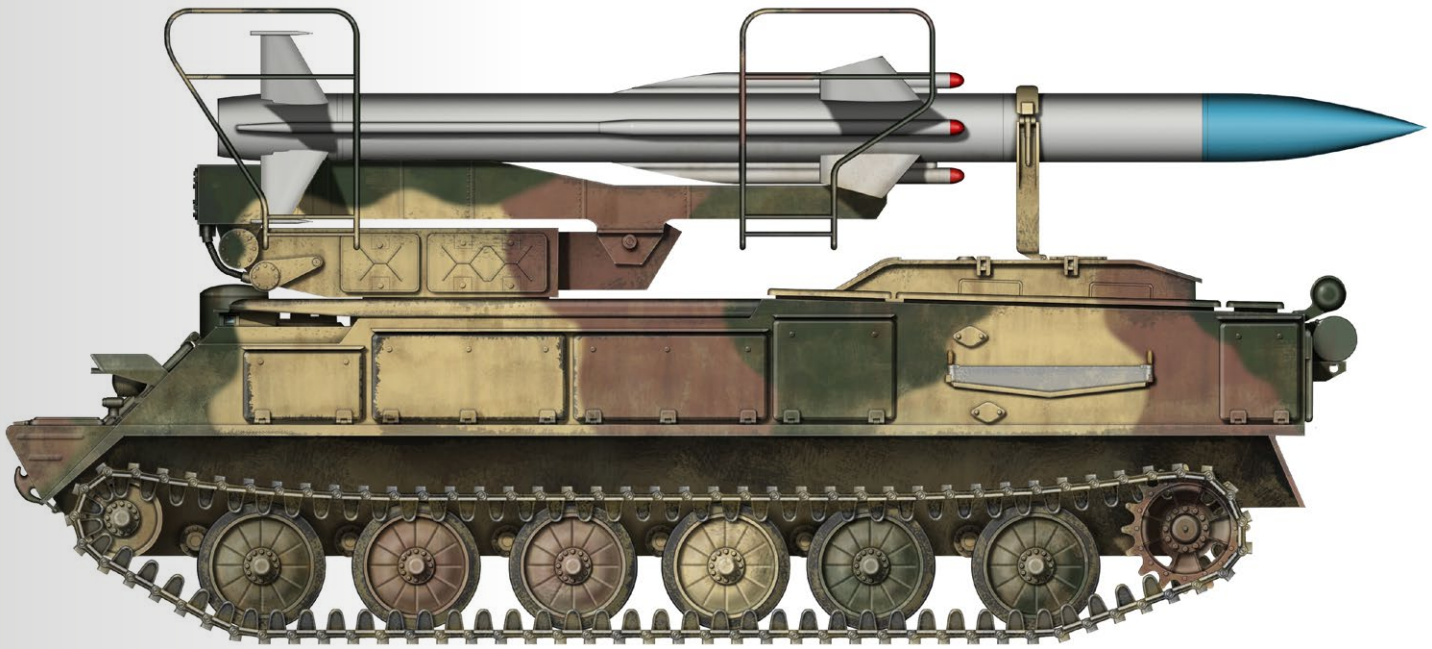
An Egyptian ZSU-23-4 Shilka
as pictured in a military parade in Cairo following the 1973 war. These radar guided SPAAGs would prove lethal to Israeli low level aircraft in the conflict.



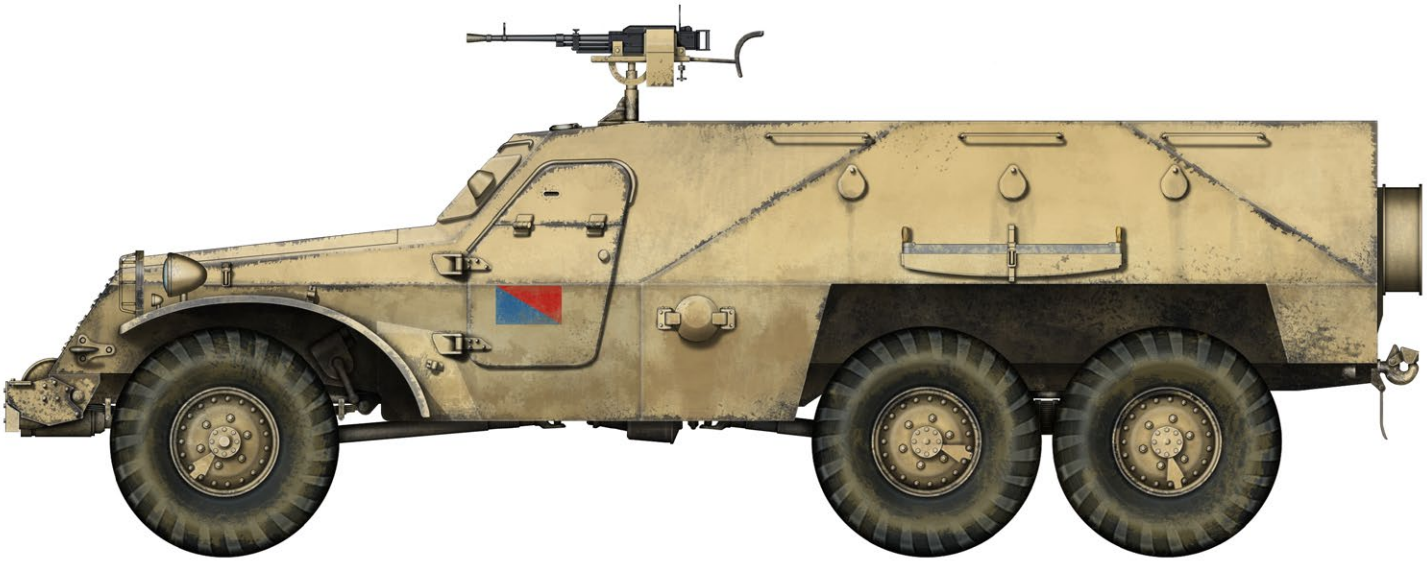
An Egyptian 2K12 Kub (SA-6 Gainful) proved effective in downing a number of Israeli fighters over the Golan in 1973, forcing Israeli aircraft to deploy various counter measures, the lessons learnt by the IAF would see fruition over the sky's of Lebanon in 1982 when the Israeli air force destroyed numerous Syrian SAM sites for little loses to themselves.



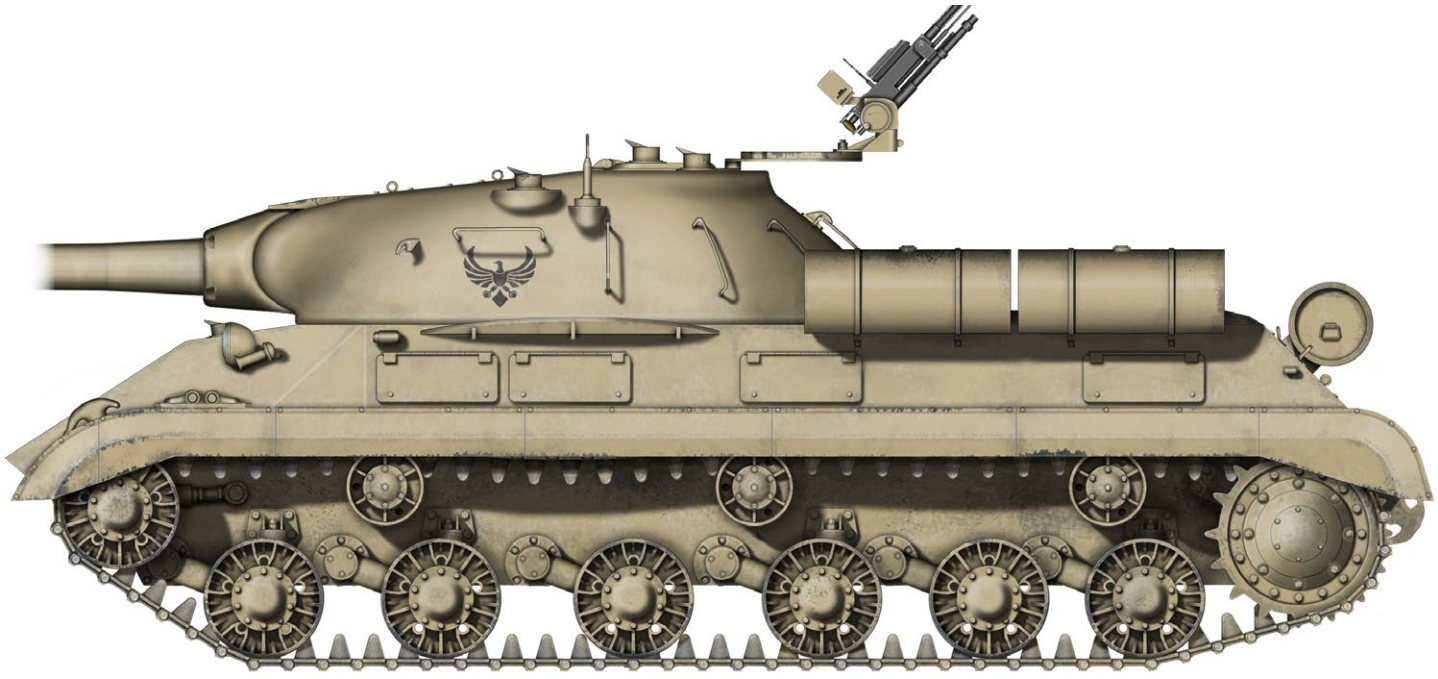
An Egyptian 2K12 Kub (SA-6 Gainful) seen shortly after the Yom Kippur war. These missile systems were fundamental to Egypt's strategy in the Sinai and were responsible for the destruction of a large number of IAF A-4 Skyhawks and F-4 Phantoms to the extent that sorties were suspended till counter measures were hastily deployed.



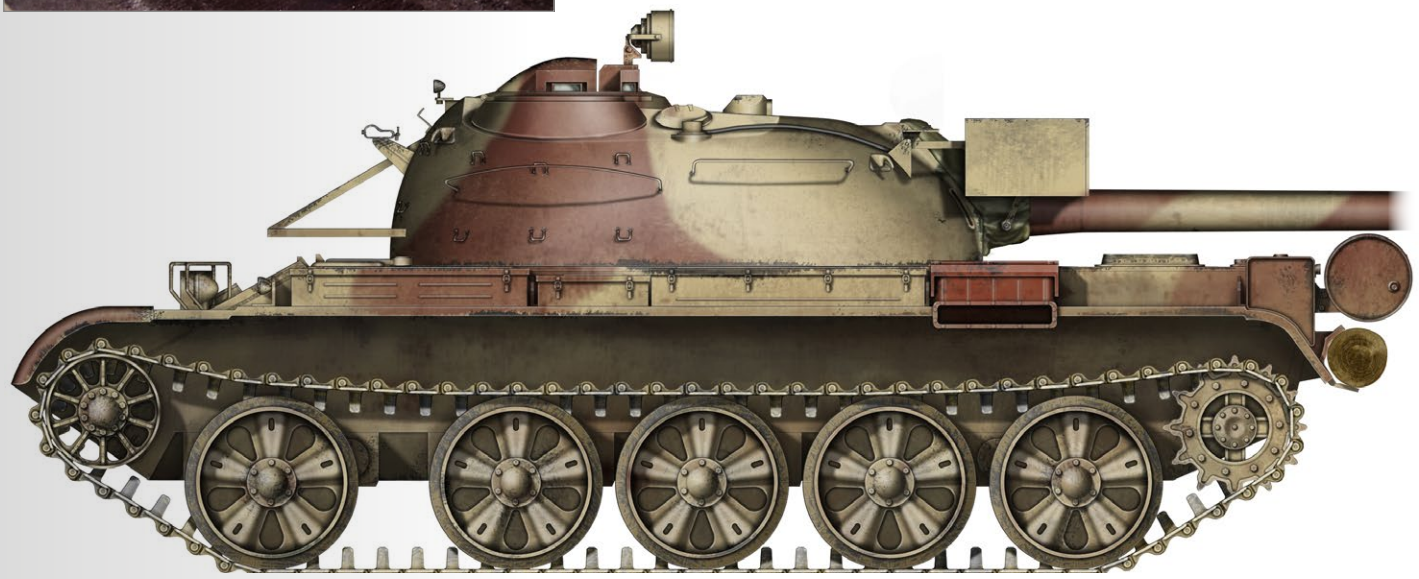
An Egyptian BTR-152
The Egyptian army found this Zil-157 truck-based APC highly reliable and cost-effective, it also served as a basis for the indigenous Walid APC based on the Unimog truck design.



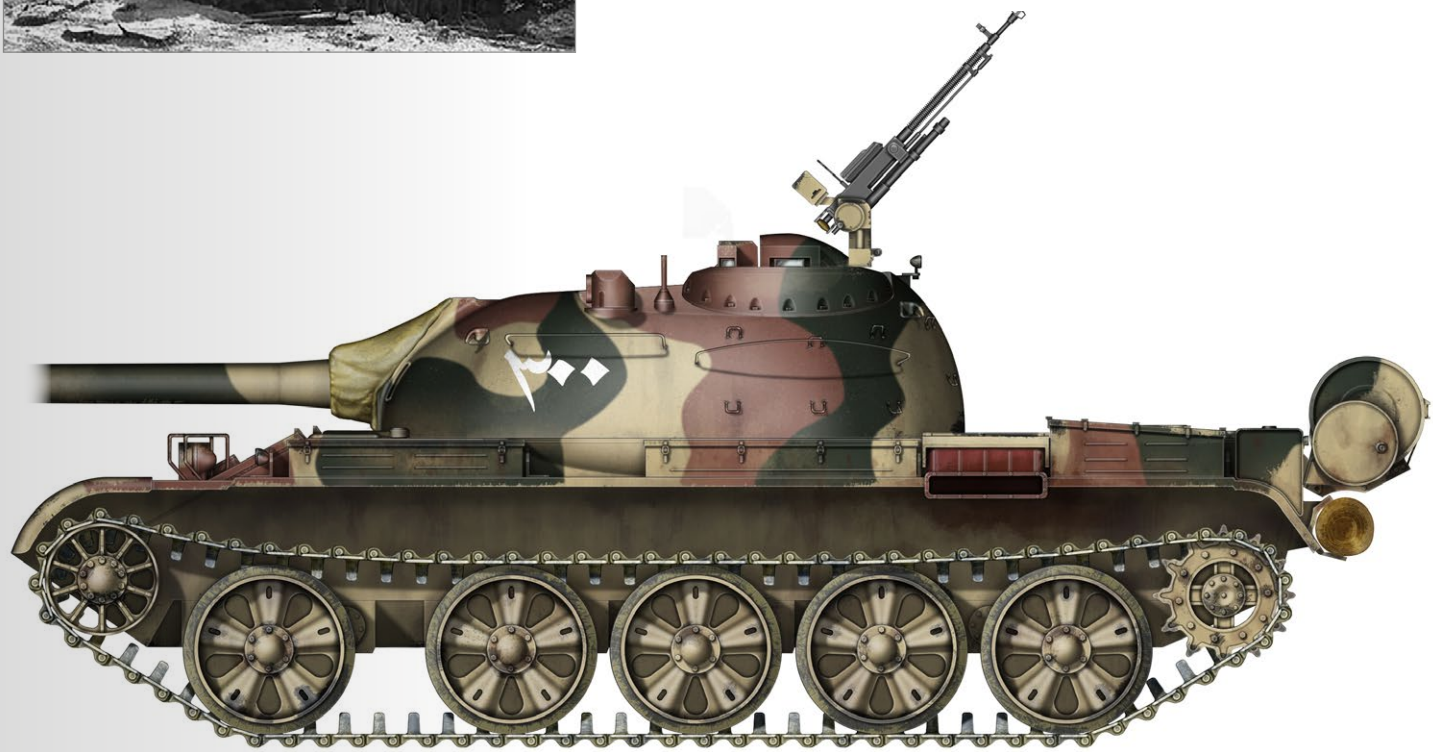
An Egyptian IS-3M,
these updated versions of the original World War Two variants with their thick armour and 122mm guns were tough opposition for Israeli M48s in the Sinai in 1967. Here we see one on parade markings before this conflict.



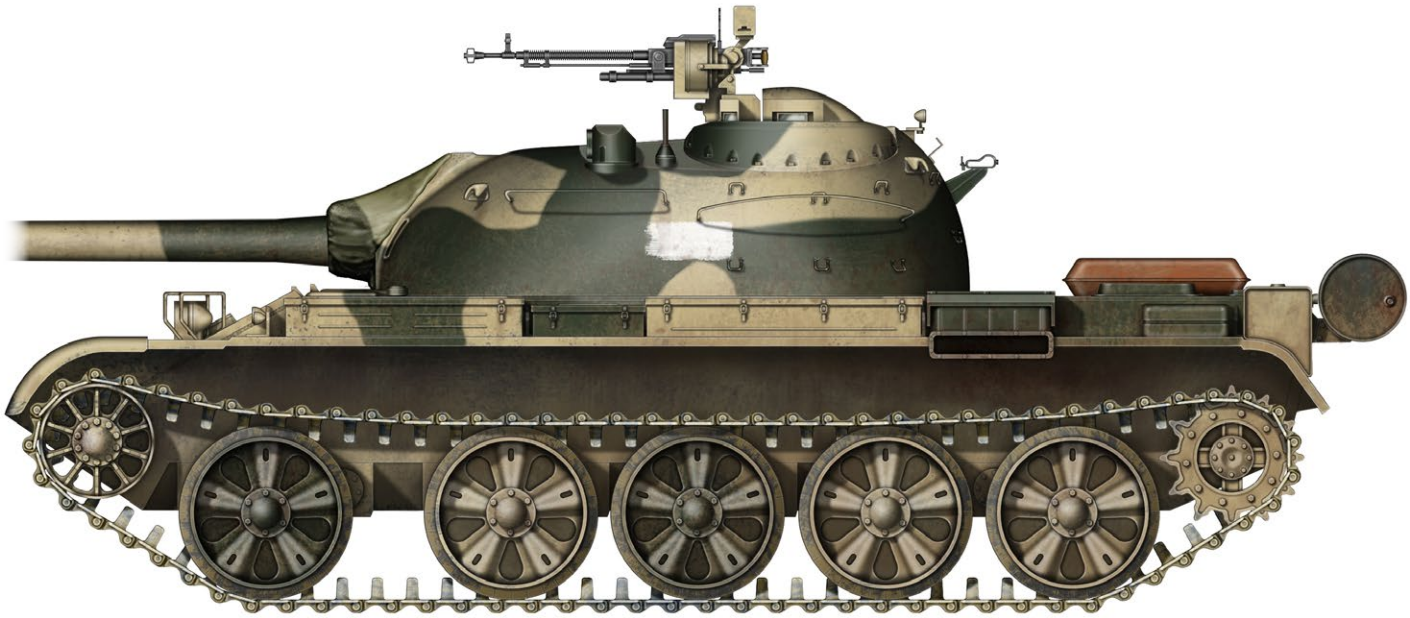
This Egyptian T-54 Model 1951
was updated by Yugoslavian state factories by adding a West German AEG Telefunken search light and Yugoslav Iskra laser range finder.



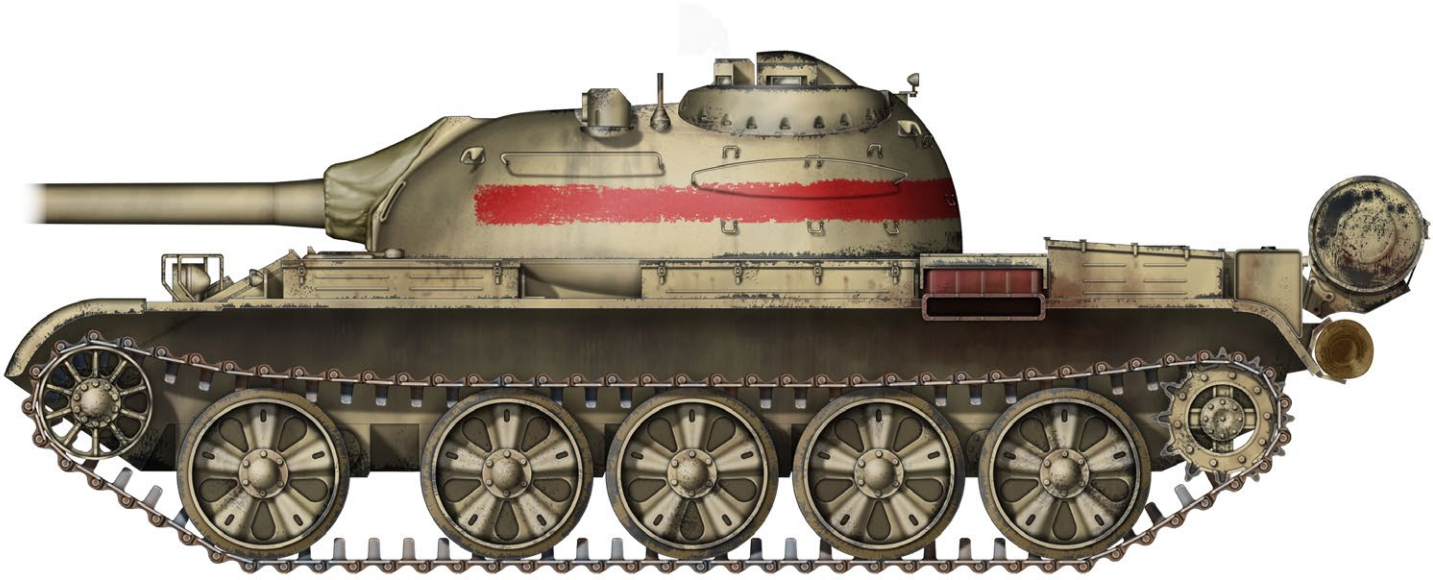
An Egyptian T-55
in camouflage of the Yom Kippur war period, these variants were not anywhere as common as the T-54 variants then in Egyptian service.



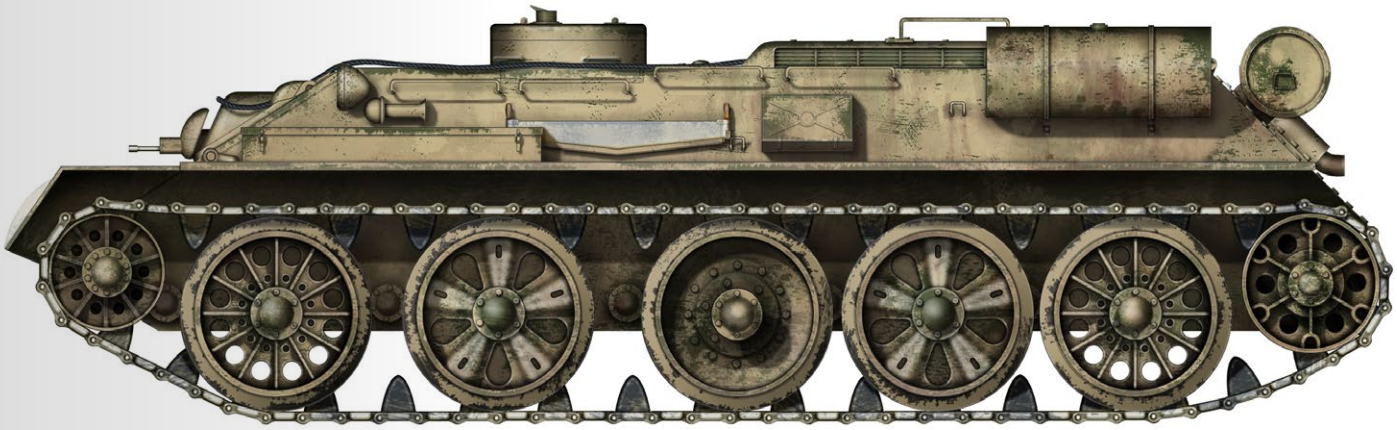
An Egyptian T-54-1
supplied byYugoslavia. These early T-54s were updated with West German search lights and Yugoslav Iskra laser range finders, replacing the Soviet commander's sight system.



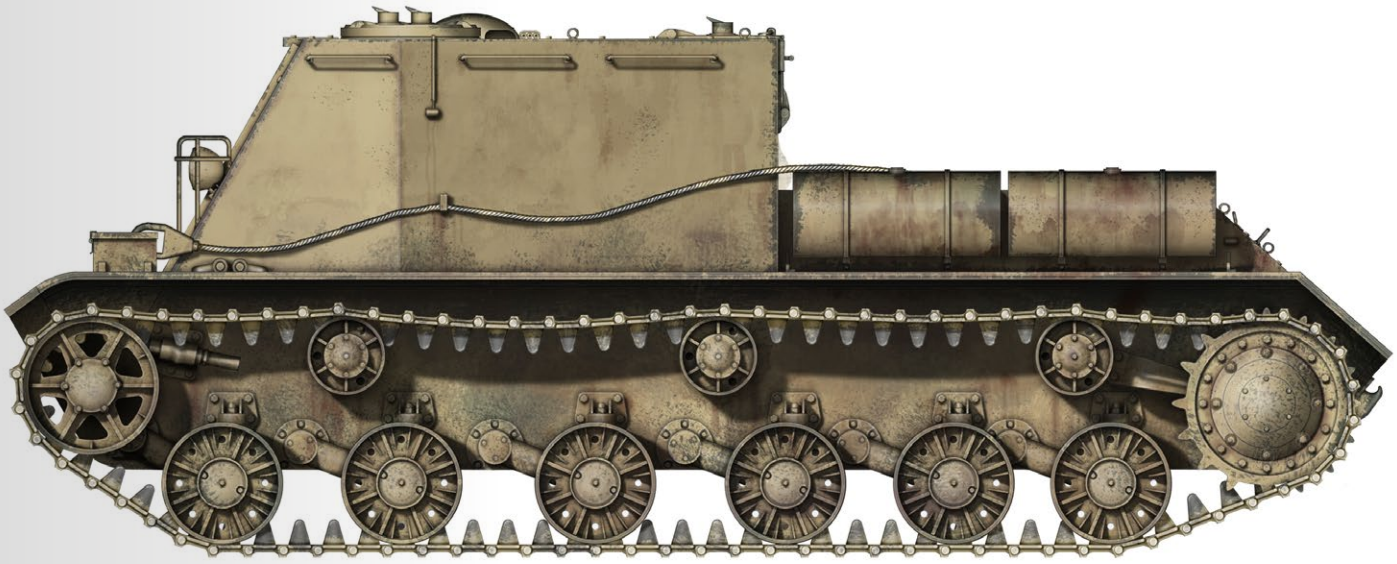
An Egyptian T-55
with red recognition marking as seen in Egyptian army exercises shortly after the Yom Kippur war.



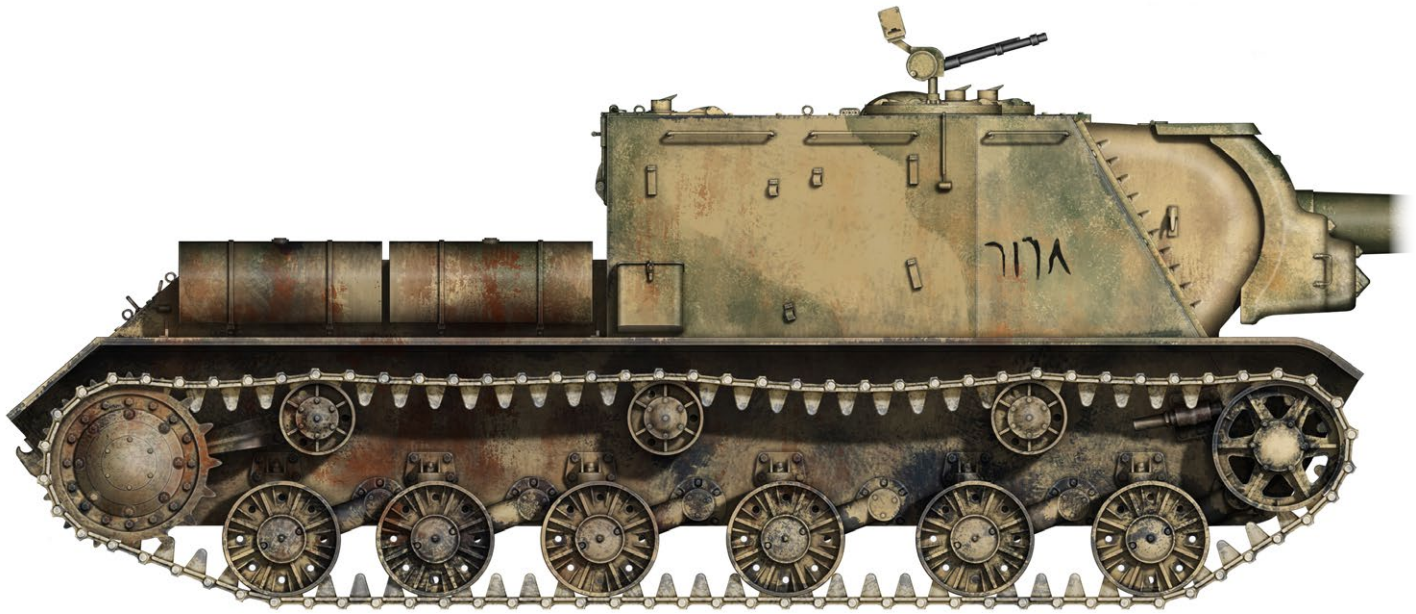
A T-34T ARV,
this basic recovery tank was used by both Egyptian and Syrian forces, in Egypt as early as 1967 and by the Syrian army in Lebanon as late as 1978.



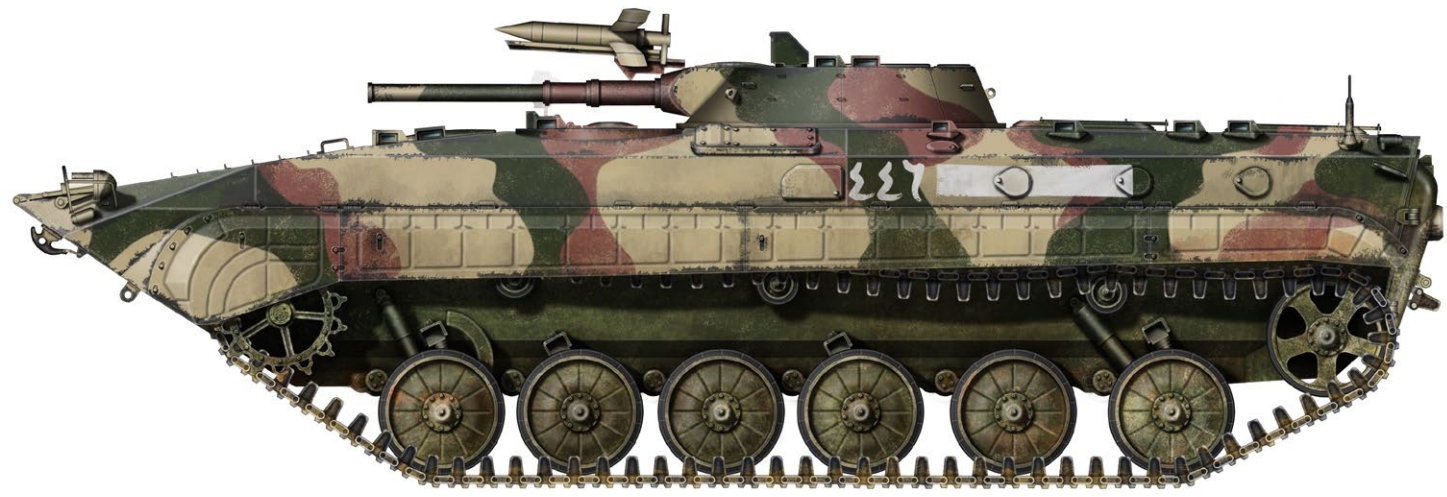
An Egyptian ISU-152K
or command vehicle, a small number of these unarmed ISU-152s were used by Egyptian forces during the 1967 and 1973 conflicts, one example can be seen crossing the canal on a pontoon bridge, some may have been used as simple tow vehicles.



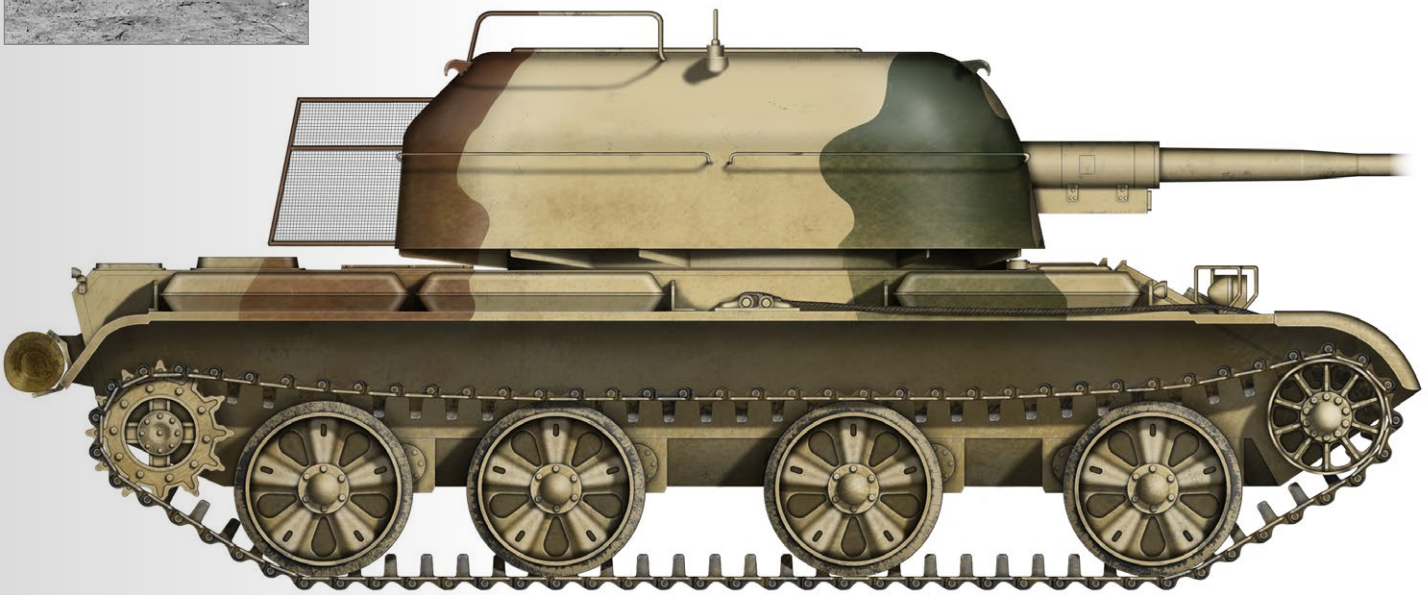
An Egyptian ISU-152
these old WWII work horses were well and truly outdated by the early seventies, their 152mm guns were effective during the War of Attrition between 1967 and 1970 which involved numerous artillery duels and raids along the Suez canal.



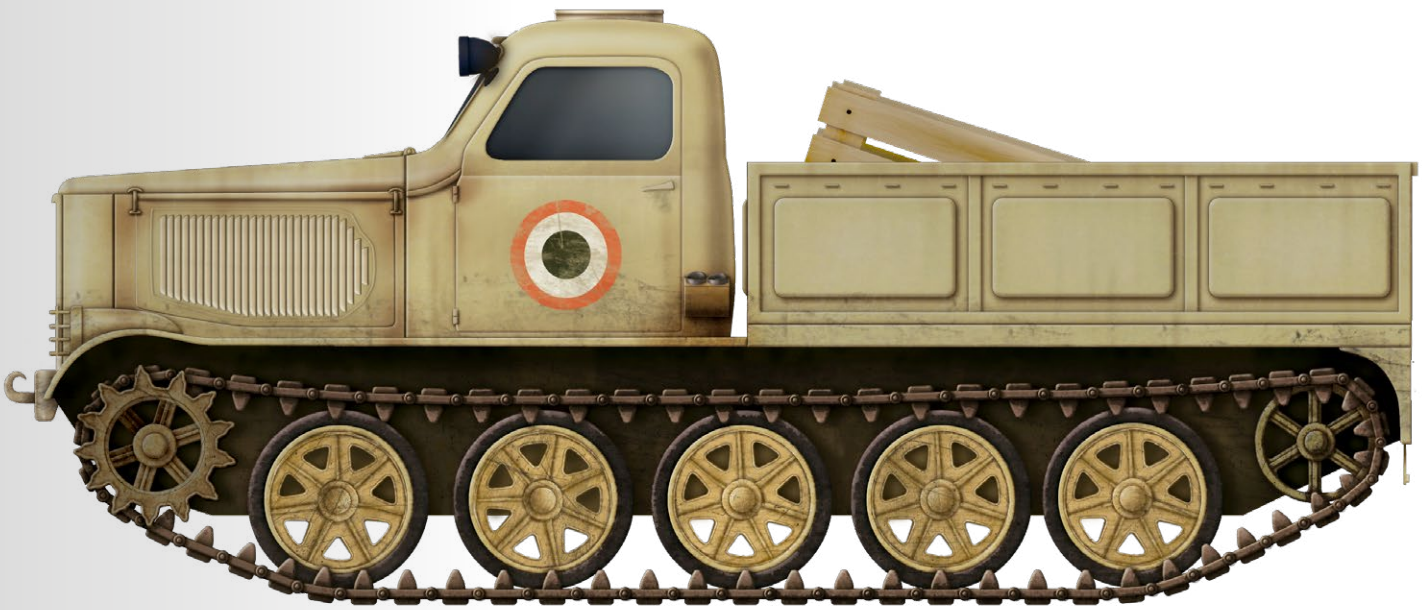
An Egyptian BMP-1,
wearing the white recognition strips Badr as the crossing was referred to by Egyptian HQ. Such markings were also found on SU-100s, T-54s, T-55s and T-62s.



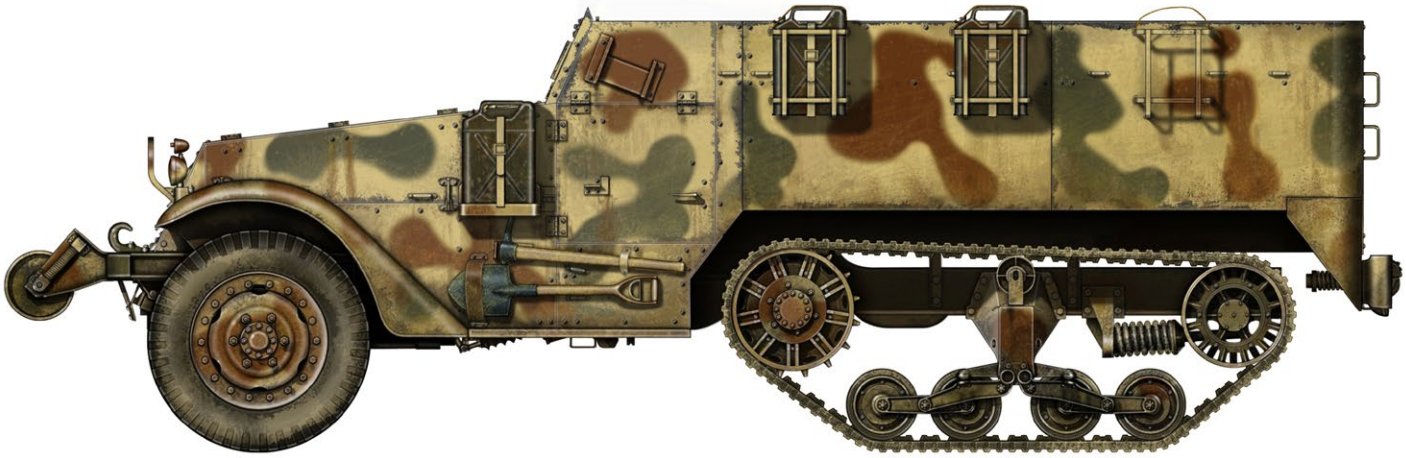
An Egyptian ZSU-57
this radar-less SPAAGs were still a useful weapon in 1973 but not against fast moving fighter jets. In the ground role the ZSU-57 was highly effective against all but the most heavily armoured vehicles.



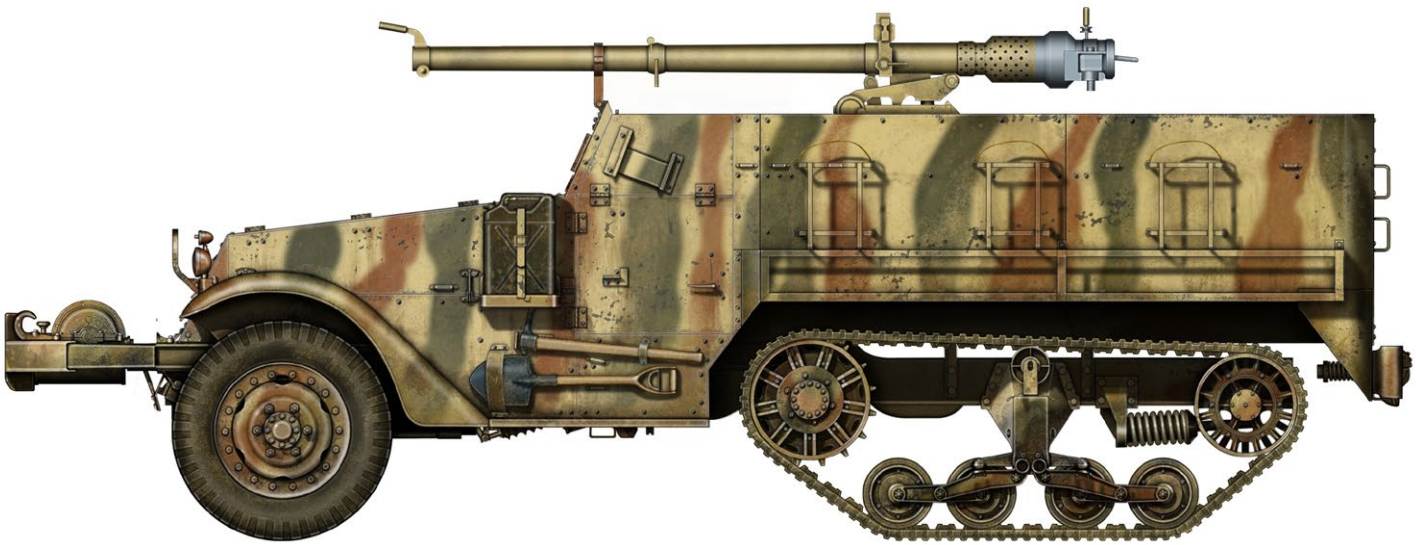
Abandoned Egyptian army AT-L
artillery tractors in the Sinai after the Six day war, the side engine covers were removed to aid cooling.



An Egyptian army M3/5 half-track,
a number of these APCs were used by Egyptian forces during the Yom Kippur war, its extra jerry can holders are of note as is the three tone camouflage on this example.



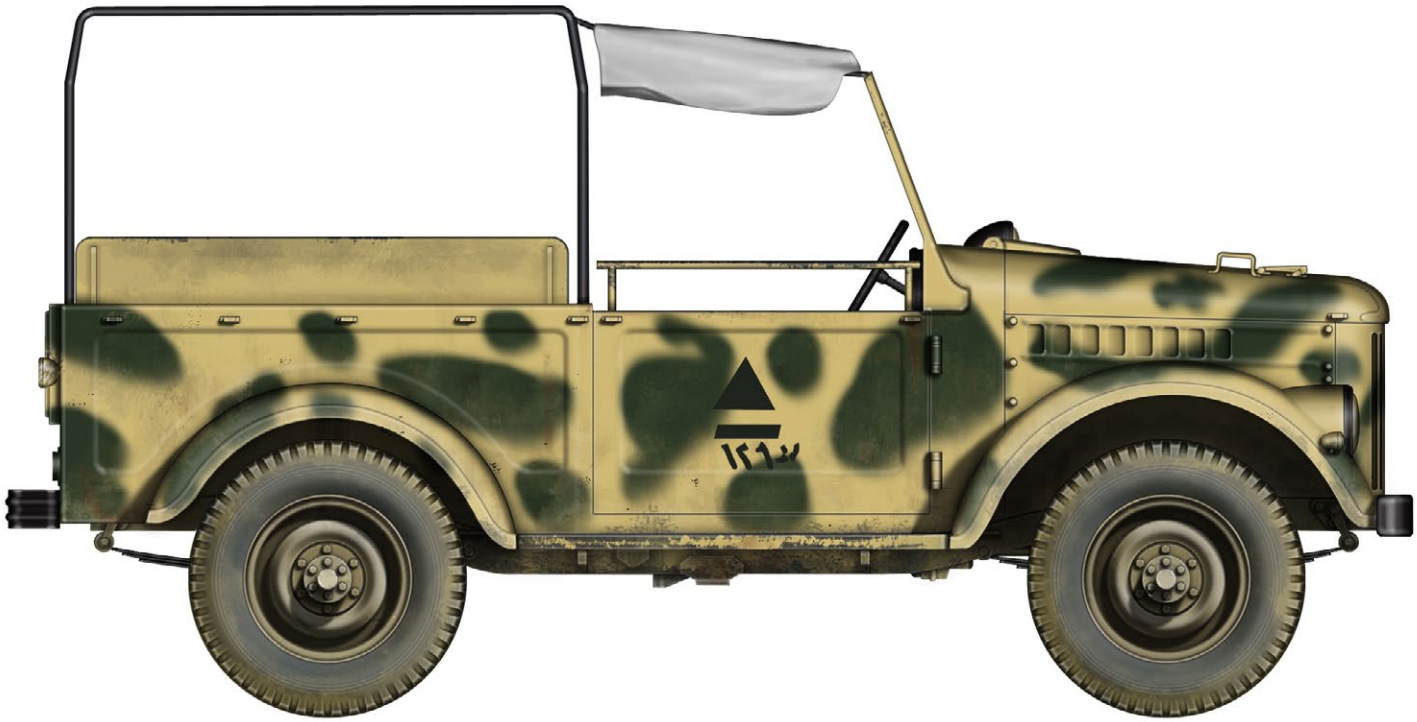
An Egyptian army M5 halftrack,
a number of these venerable old APCs, remnants from British arms deliveries in the early post war years were armed with Soviet-supplied B-11 recoilless rifles and can be seen in footage from the Yom Kippur war.



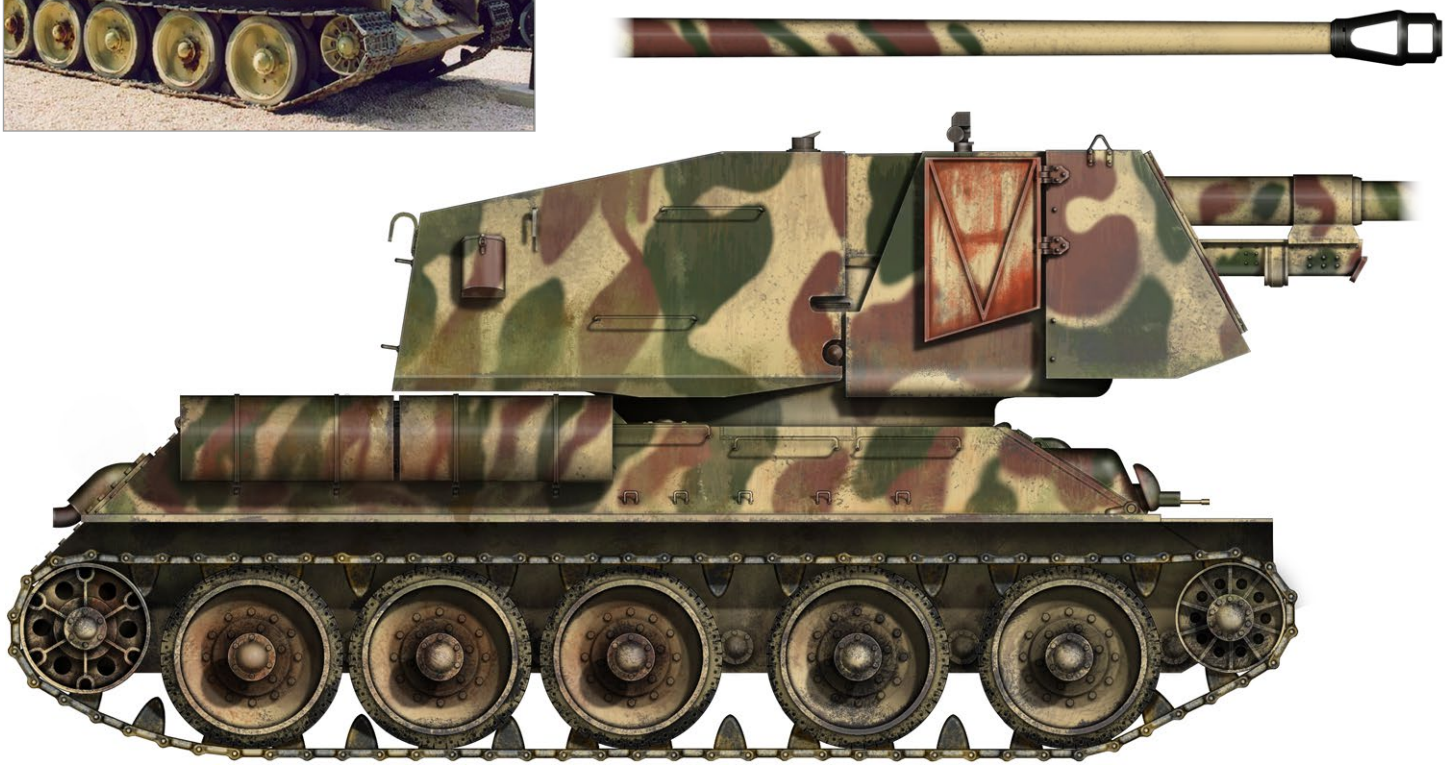
The K-61 was one of the two dedicated amphibious carriers used by Egyptian forces in 1973. Although many other Soviet designed tracked and wheeled APCs had this ability, the K-61 had a loading ramp at the rear and could carry light tracks or artillery pieces.

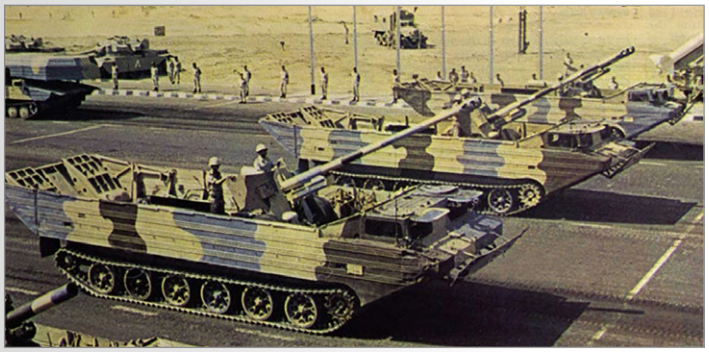
An Egyptian K-61 first generation amphibious vehicle. These vehicles used the narrow tracks and road wheels of the T-70 and SU-76 series.

An Egyptian army Gaz-69M
from the 1973 campaign, this version wears an interesting green and sand camouflage pattern with Egyptian unit markings.

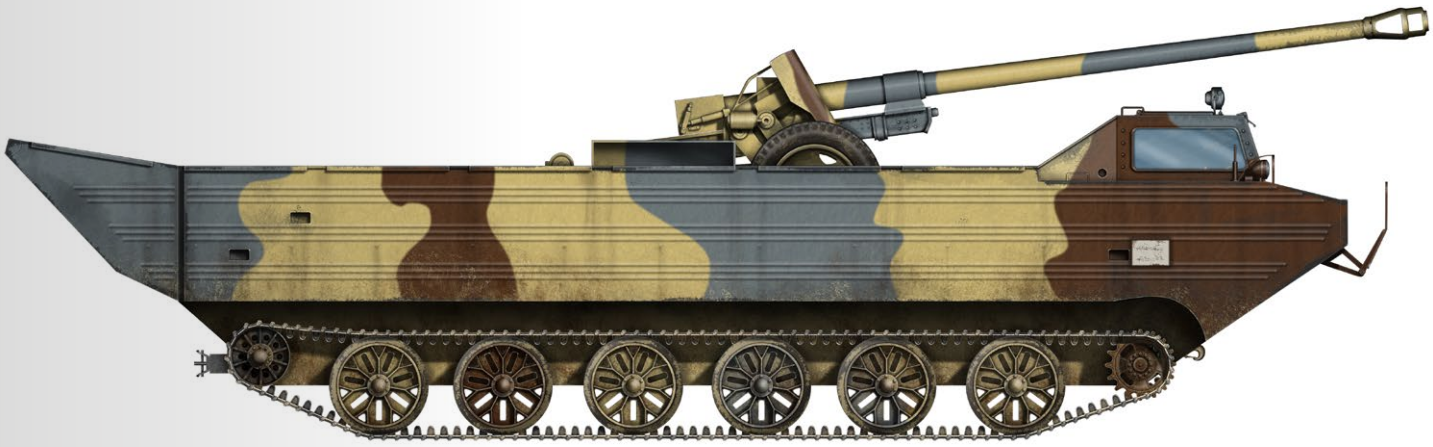


An Egyptian T-34-100
the overhang of the main gun is considerable. Also of note is the thin sheet armour on the upper section of the converted turret to the rear of which were carried a number of B3 100mm rounds.

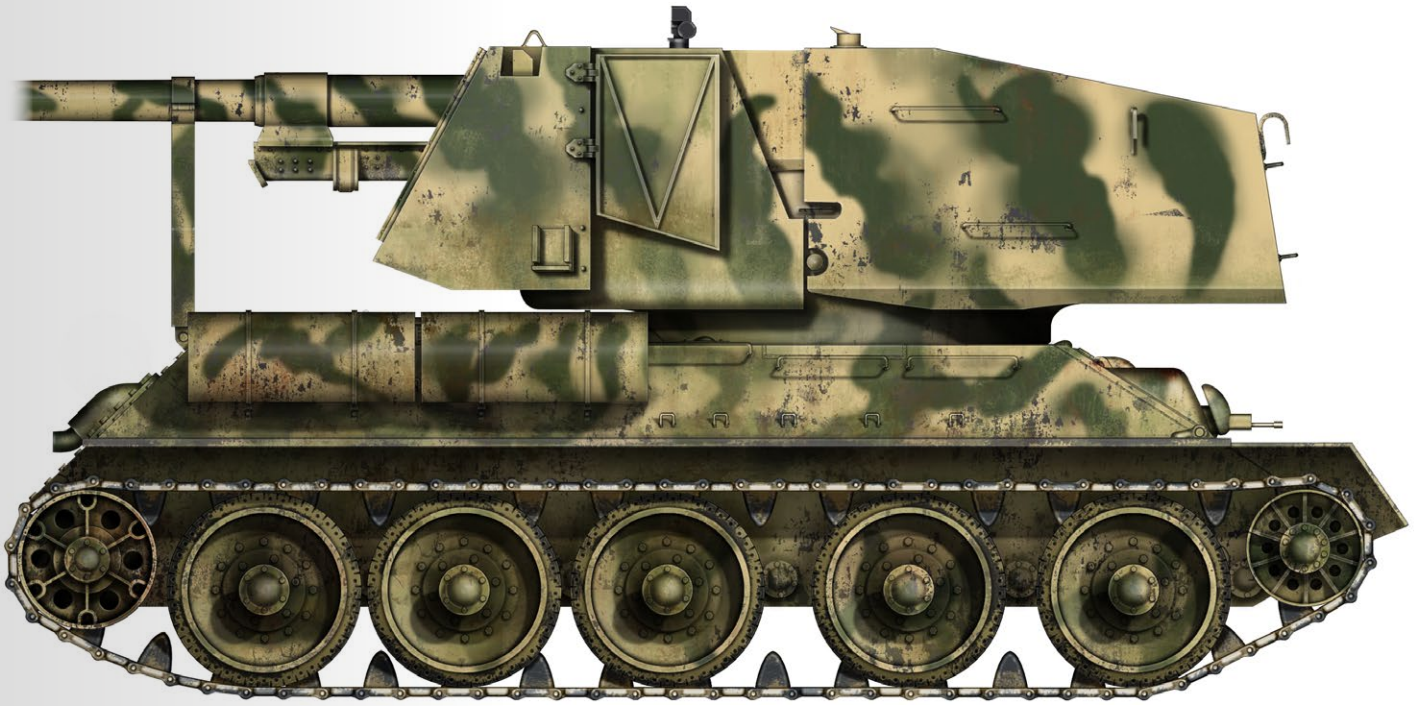




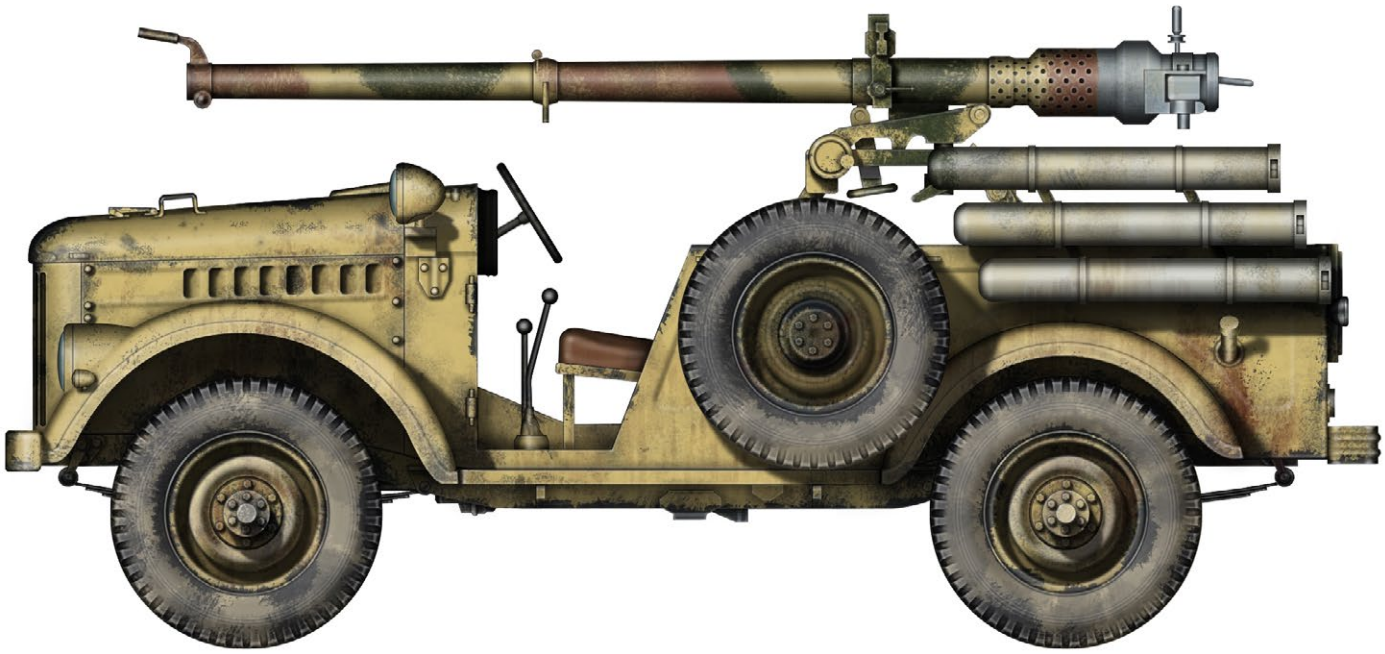
An Egyptian army PTS-M
this second generation amphibious vehicle is seen carrying a World War Two vintage M1938 or M30 122mm Howitzer, these units are still in service in many countries today.



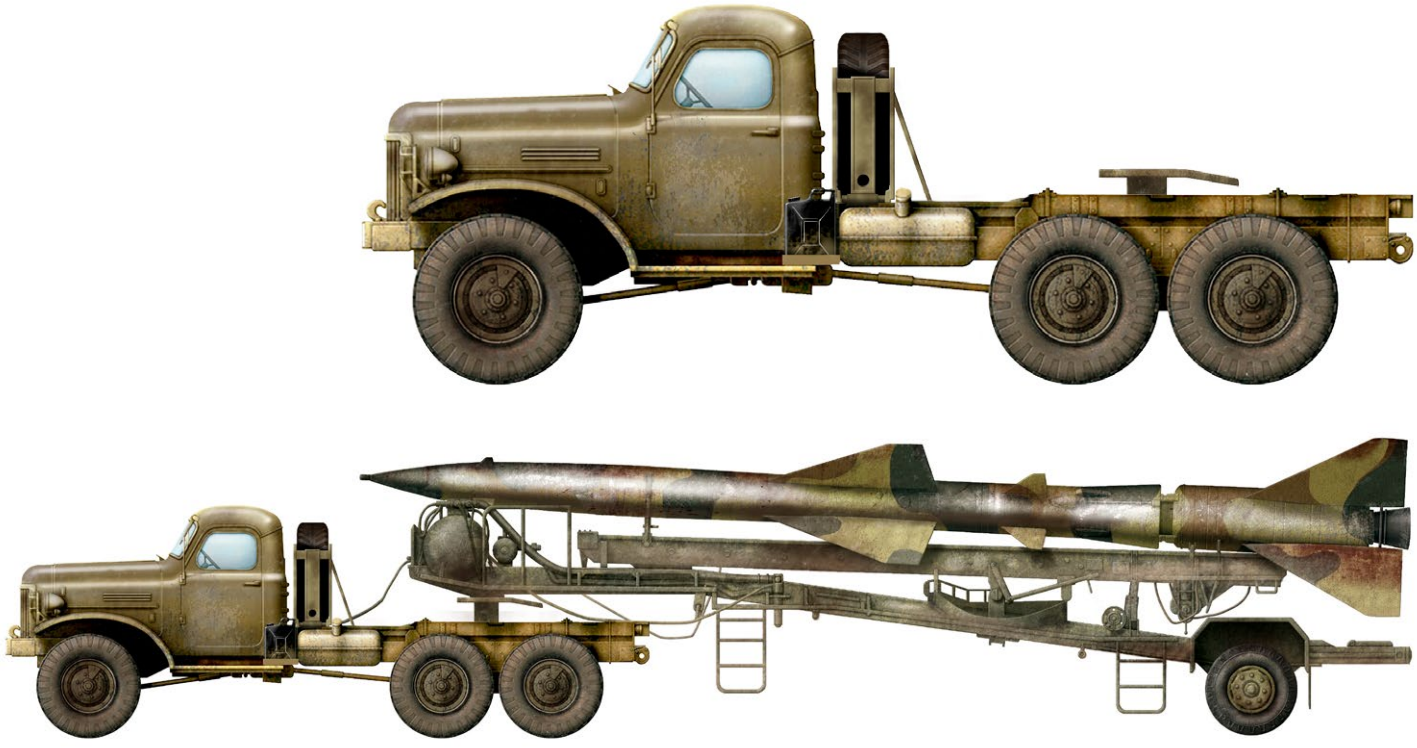
An Egyptian T-34-100,
this interesting conversion was an attempt by the Egyptian military to get some extra service out of the then out of date T-34-85 by adding the B-3 100 mm gun to a truncated T34 85 turret.



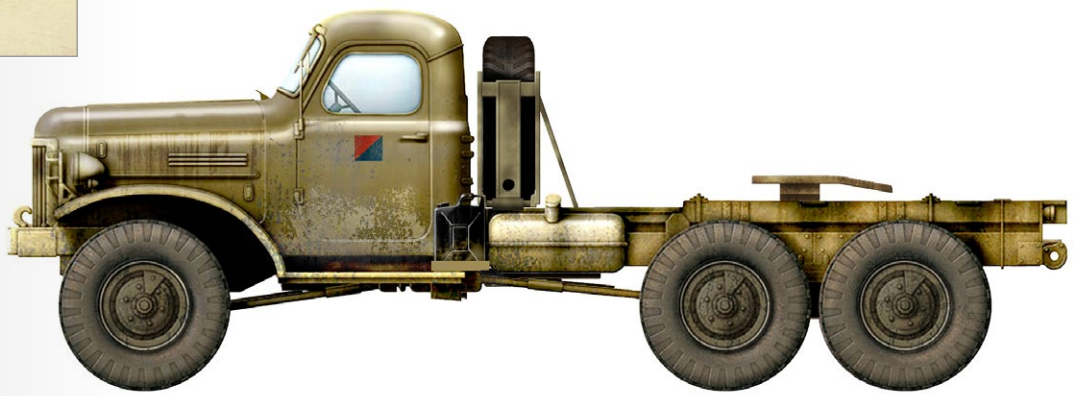
A B-11 gun-armed GAZ-69M
of the Egyptian army. The B-11 107mm recoilless gun was widely used throughout the Syrian and Egyptian armies and was employed by Egyptian forces together with Sagger missiles in the initial surge across the Suez canal.

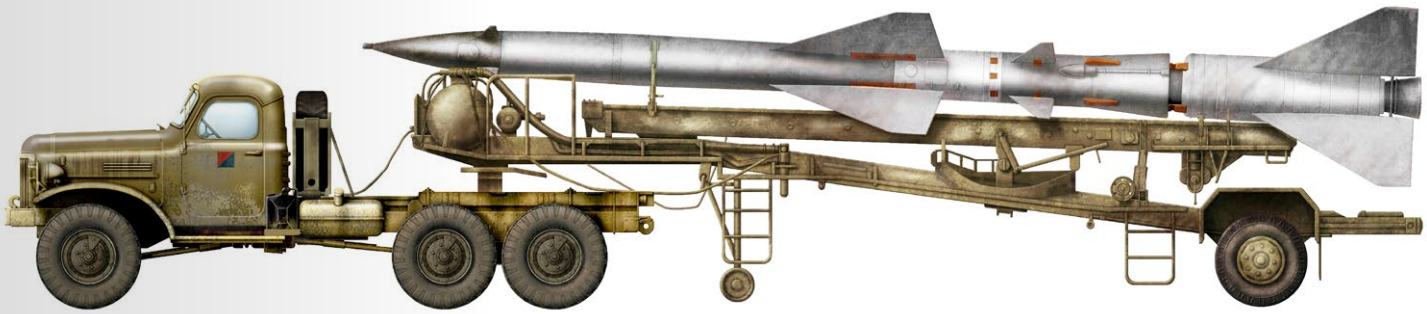


An Egyptian S-75 (SA-2 Guideline)
SAM system on its ZiL-131 based transport unit.

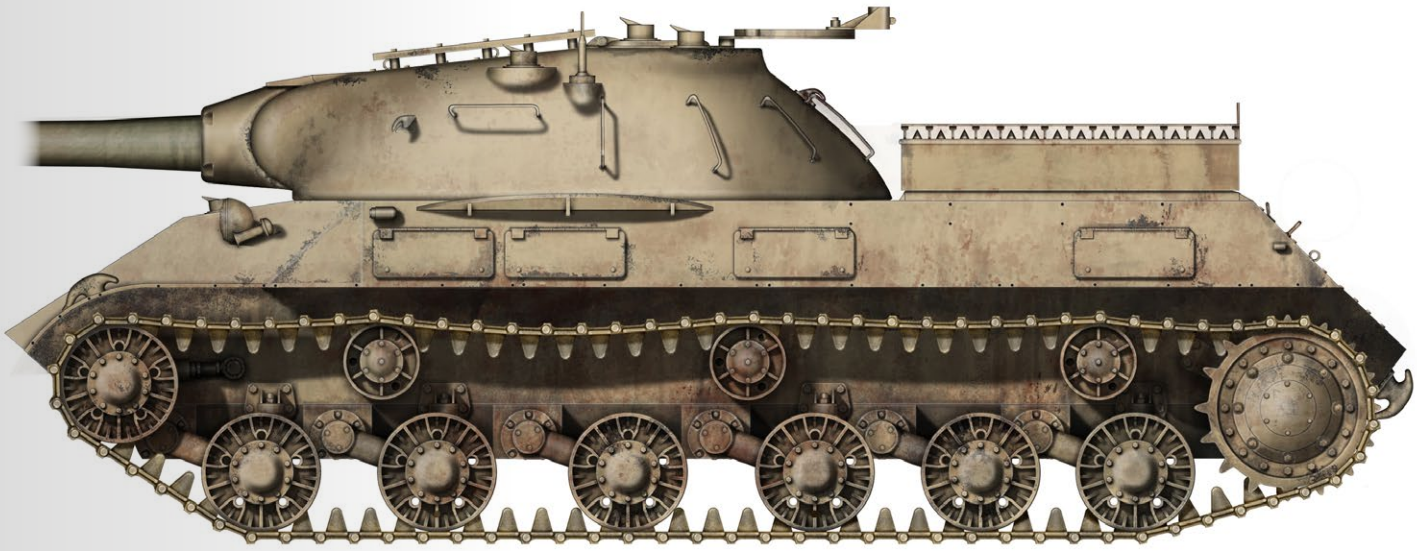


An Egyptian S-75 (SA-2 Guideline) being positioned on to its launcher unit, these weapons were relatively easy to avoid for Israeli pilots, and many of these systems were overrun by Sharon's forces as they crossed back over the canal in the second phase of the 1973 war.

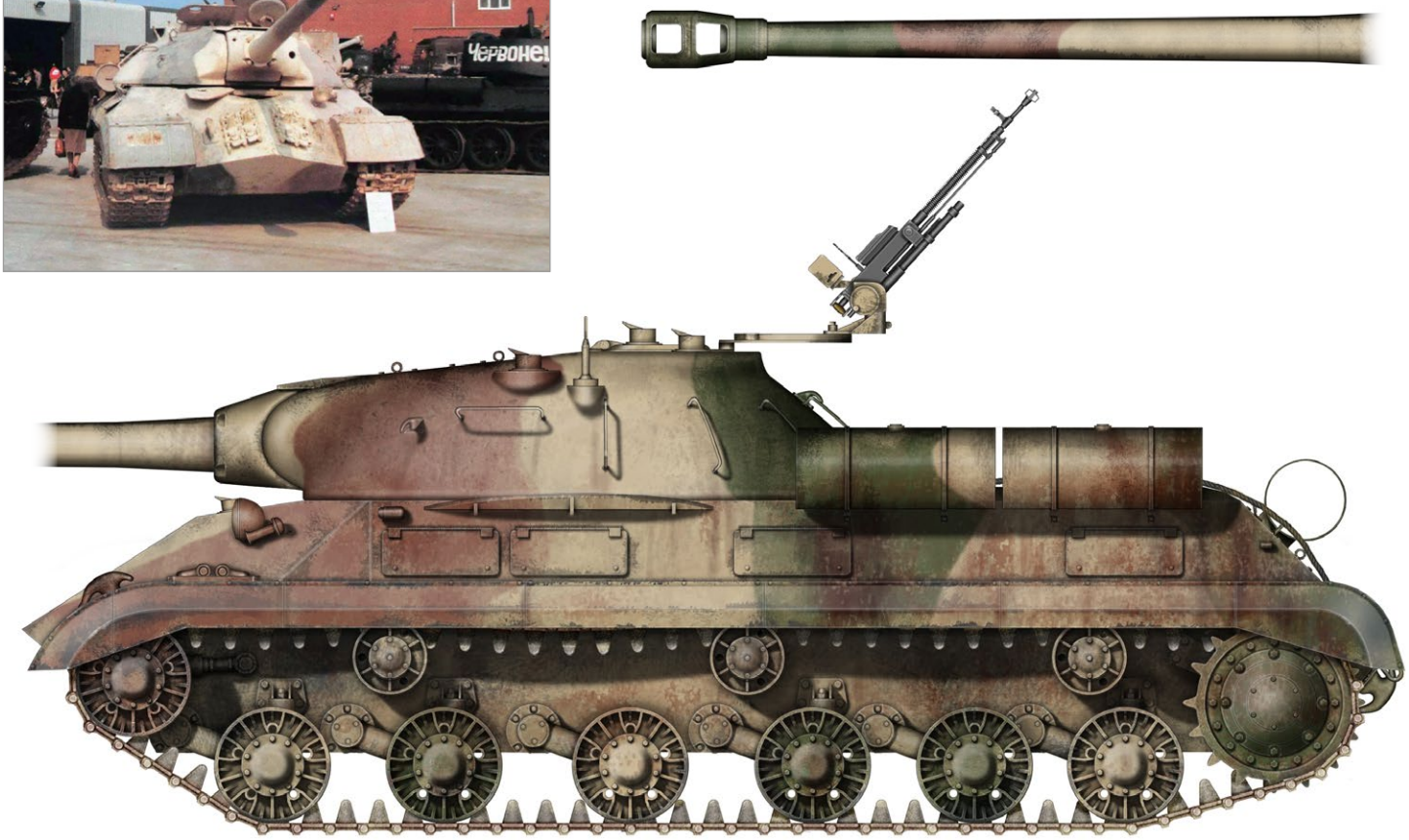




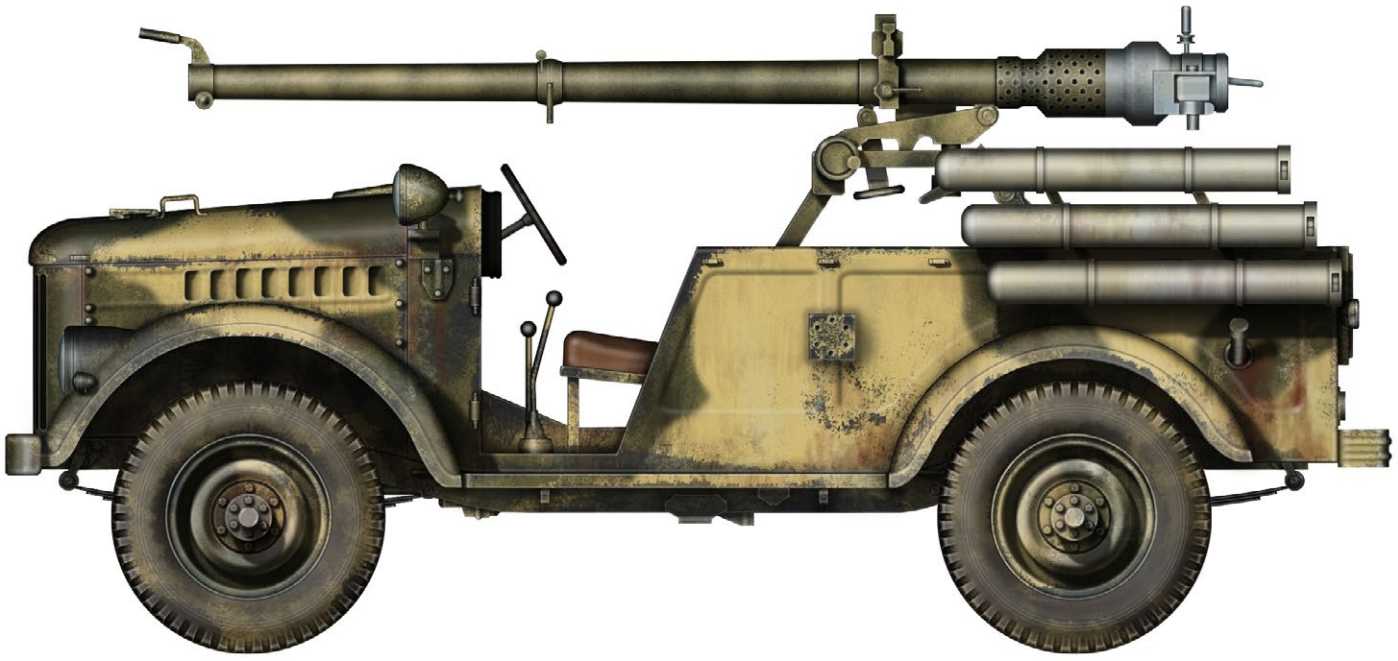
An ex-Egyptian IS-3M, one of a small number dug in along the Bar Lev line, as part of the dug in artillery fire support in fortress Budapest, these tanks had their engines removed and an extra crew area added with access through rear doors at the rear of the hull.



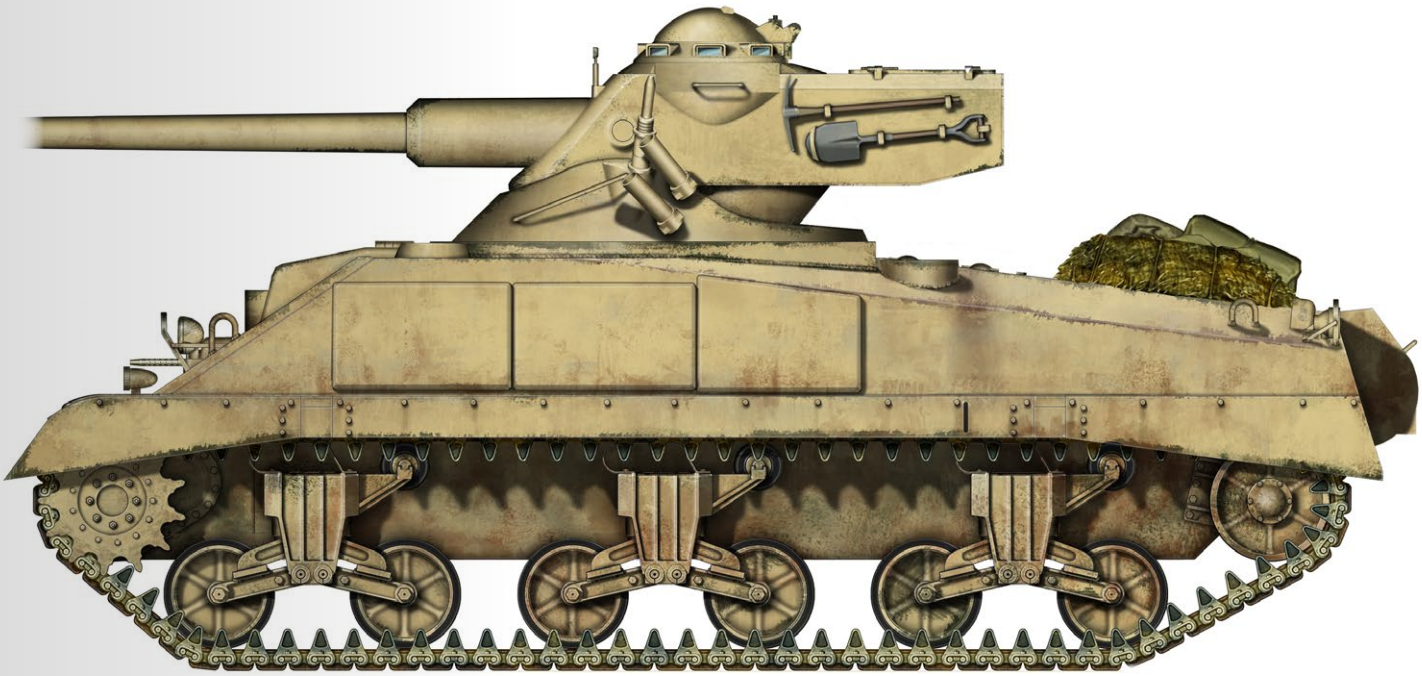
An Egyptian IS-3M, as it would have appeared late in its service carrier and during the Yom Kippur war. This vehicle's three tone camouflage is based on a vehicle belonging to the British based Budge collection and wears its original scheme.



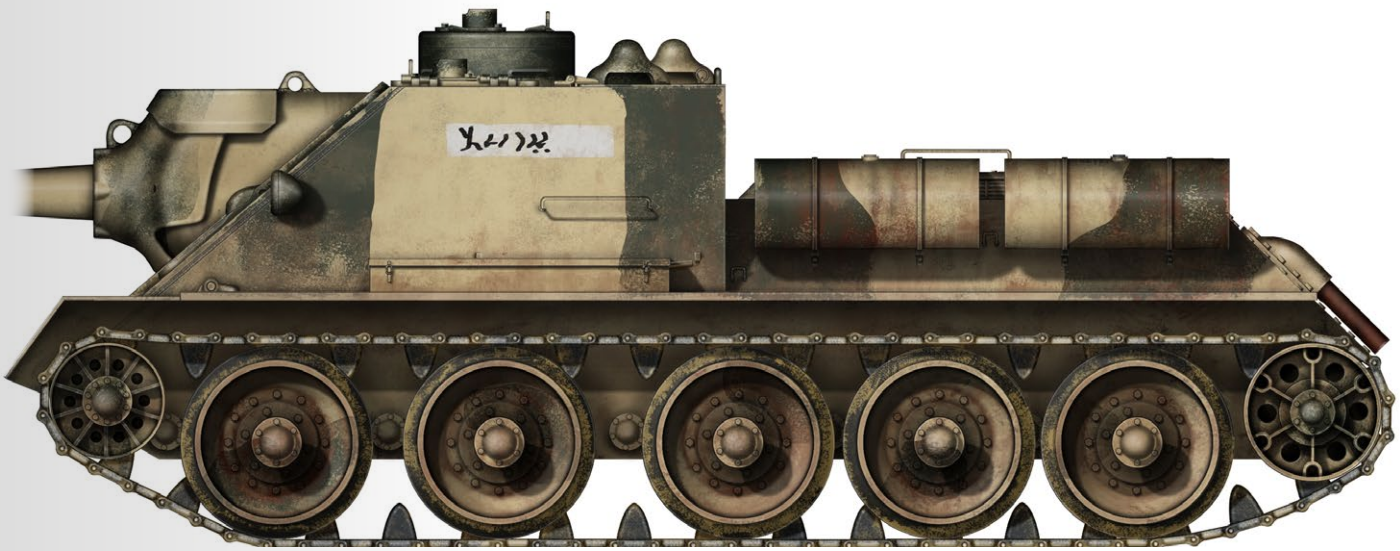
The Egyptian army mounted B-11 107mm recoilless rifles on several Gaz-69M. These, while effective in areas with cover, would have been very vulnerable to the multiple 0.50cal and 0.30cal machine guns mounted on so many IDF vehicles in the flat terrain of the Sinai.



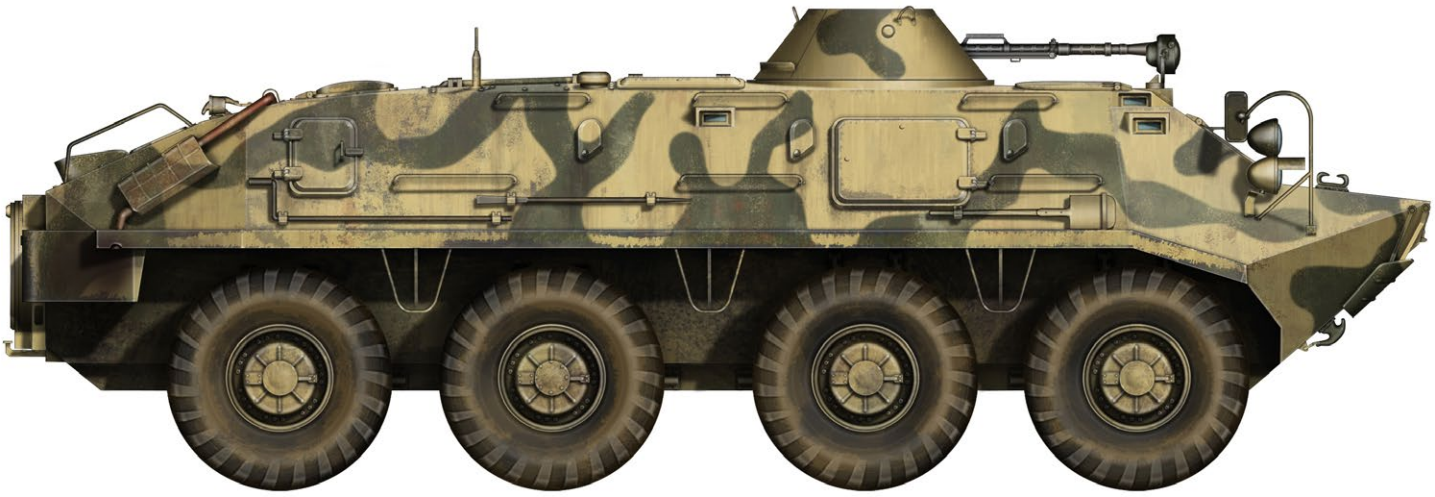
An Egyptian M4A4 FL10 version,
these Egyptian army Sherman tanks were fitted with AMX 13 turrets, in effect using the same French copy of the Panther 75mm gun design as the Israelis did in their M50s.



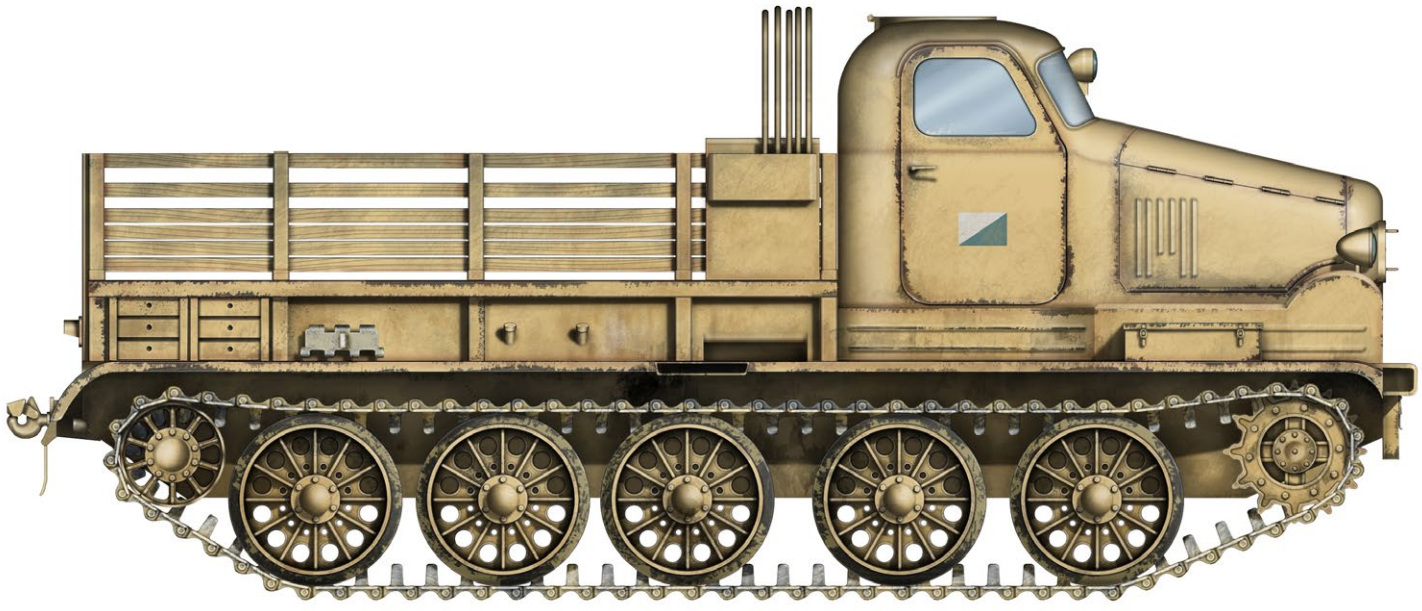
An Egyptian SU-100
in a simple two tone camouflage scheme as found on the example in the former Budge collection. These tank destroyers first saw action with the Egyptian army in Yemen.



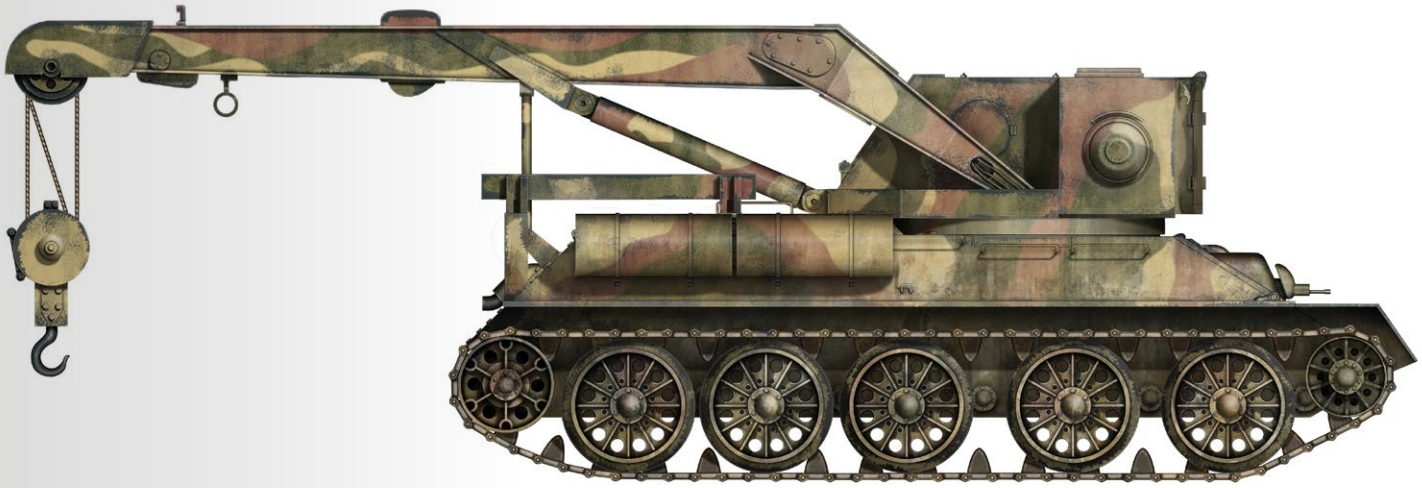
An Egyptian army BTR-60 APC,
while visually impressive and widely exported throughout many Arab nations, the BTR-60 is light armoured, with an awkward machine gun turret and petrol engine, making it very vulnerable on the modern battle field.



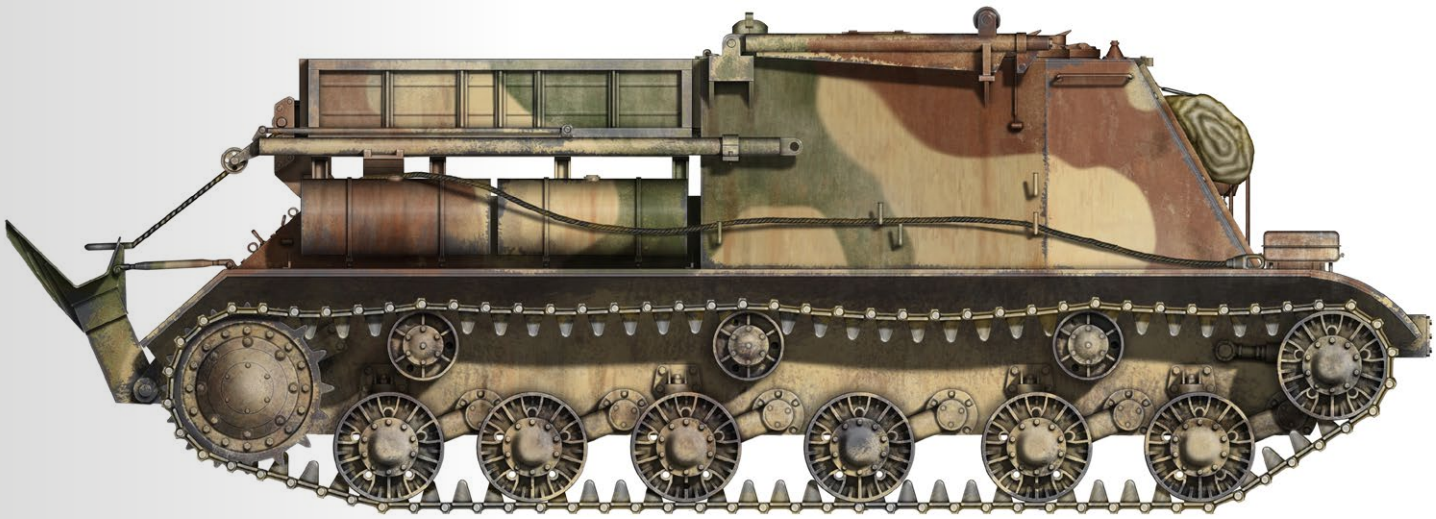
An AT-T artillery tractor
captured from Egyptian forces. Judging by the spider web wheels, it's an early version of this vehicle. The AT-Ts were relatively rare and were used to tow large SM-4-1 coastal guns and S-23 heavy guns.



An extremely rare JT-34
Czechoslovakian-built crane tank formally of Egyptian service lies destroyed and abandoned in the Sinai desert.



An Egyptian army BTT-1 ARV
a number of which were captured by the IDF and put back in to service with their new masters with IDF mudguards added but no other major changes.

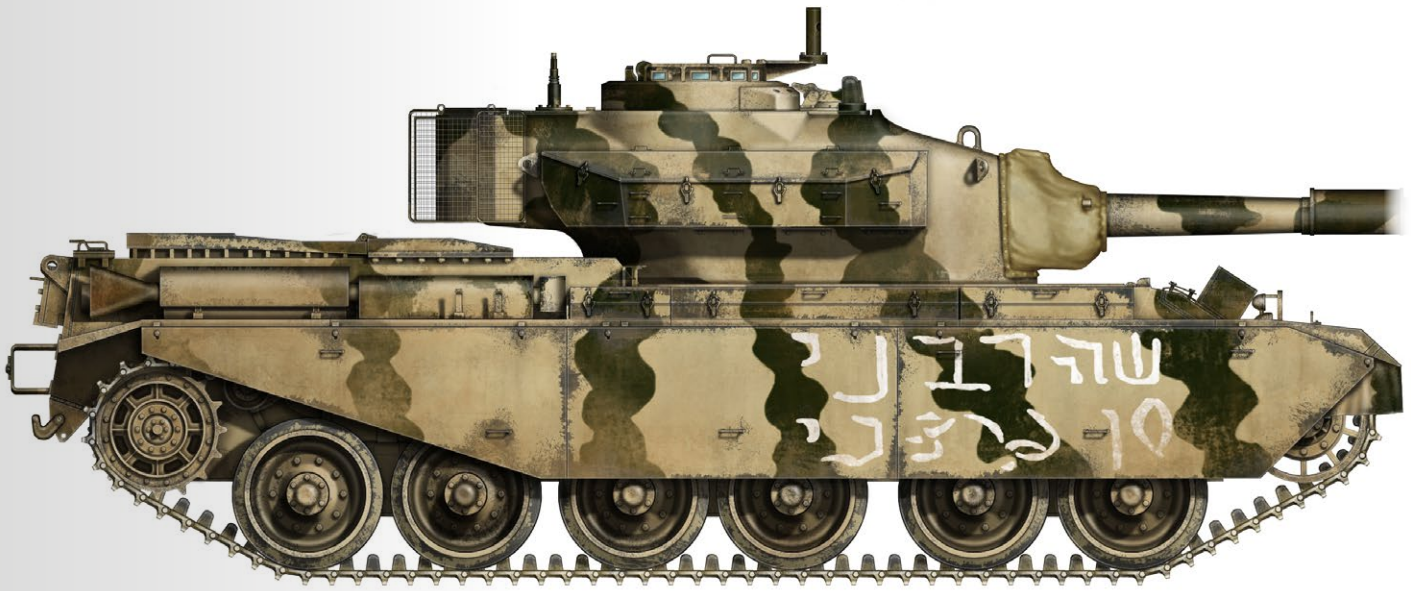


2.3 JORDANIAN & ALGERIAN VEHICLES

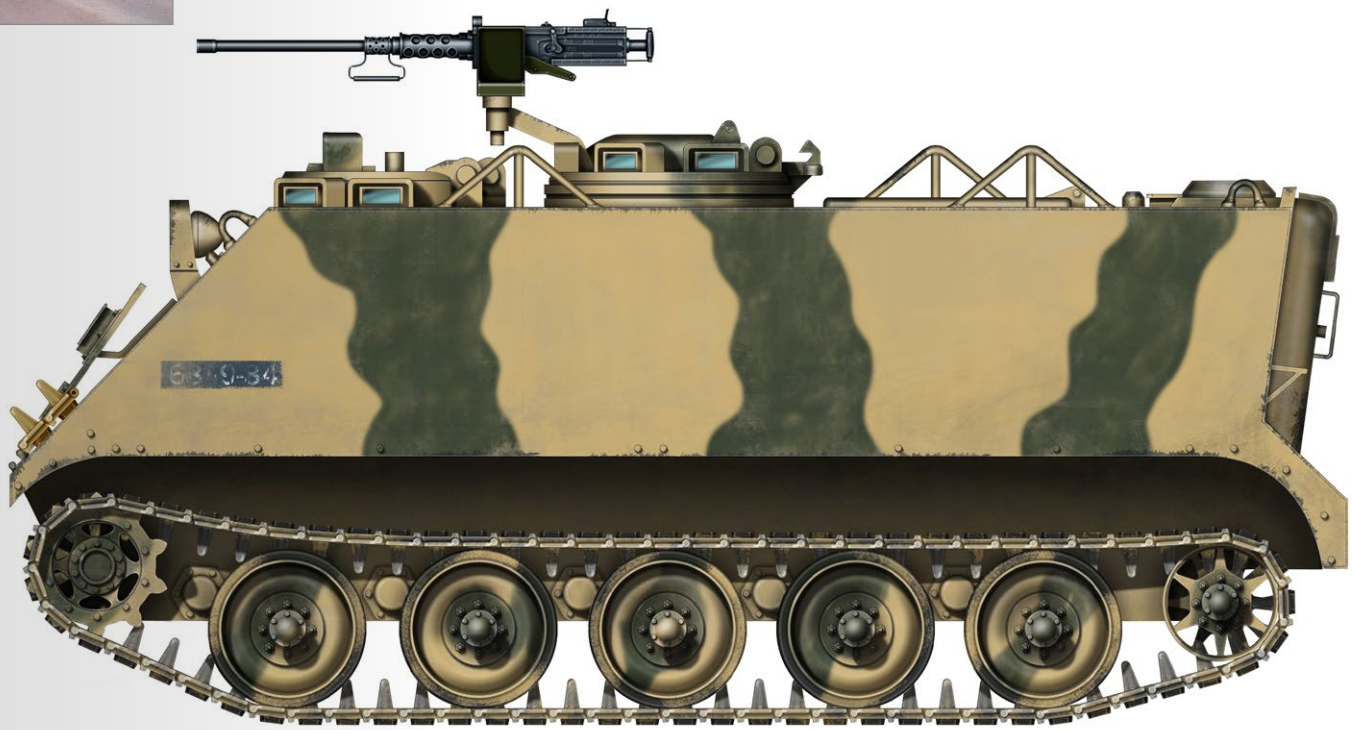
Royal Jordanian Colours and markings

The Royal Jordanian armed forces base its markings and unit emblems on the traditional British army system but with Arabic text and numbers. Until recently most of Jordanian equipment was supplied by Britain or the USA. In the early years of confrontation with Israel Jordanian equipment was either British army green or sand, but new equipment such as the M47, M48, M52 and Centurions were incorporated, and so was a new camouflage scheme of US sand yellow over which a disruptive pattern of olive drab was applied. All vehicles carried army licence plates and unit markings while some MBTs carried Arabic inscriptions on their turrets.

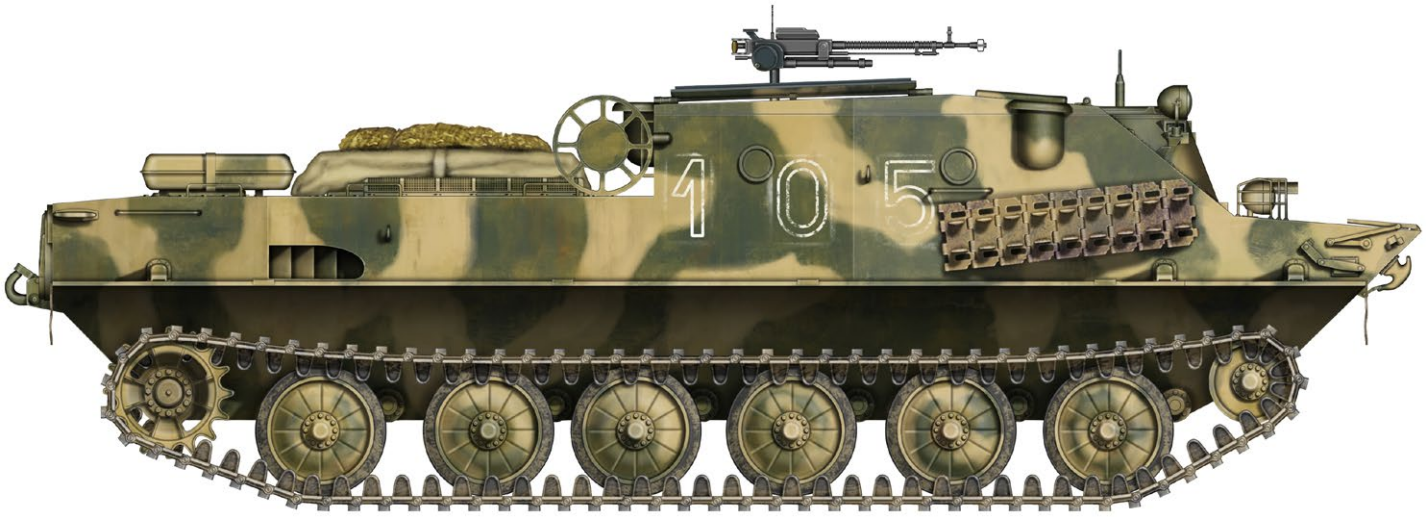
A captured Jordanian Centurion
of the 10th independent armoured brigade form the 1967 war, one of nearly thirty such vehicles not to mention M47s and M48s. Jordanian Centurions went on to see action against Syrian invaders in the fighting during Black September episode, later they would be thrown into the fray in 1973 in a desperate and unsuccessful bid to save Syrian forces at the end of that conflict.



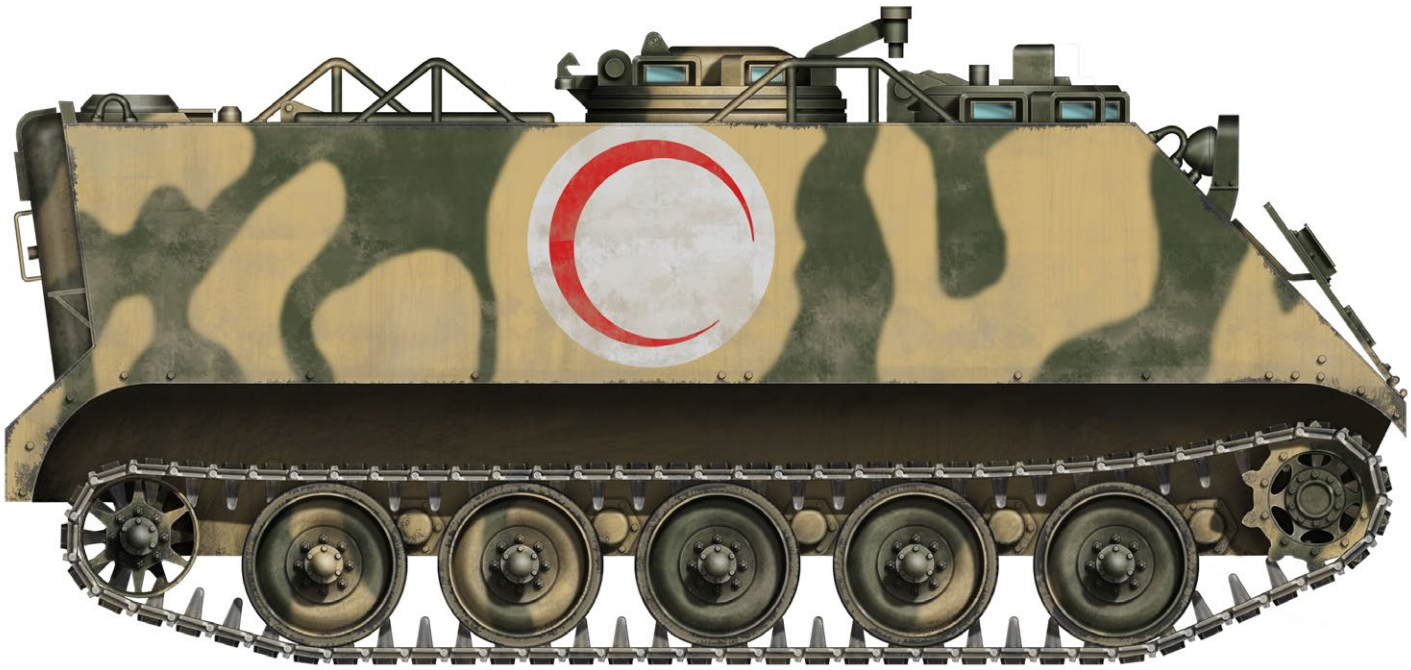
The first M113s
exported to the middle east were received by Jordan prior to the 1967 conflict, a number were captured and put into service by the IDF who ordered theirs in time for the Yom Kippur war.



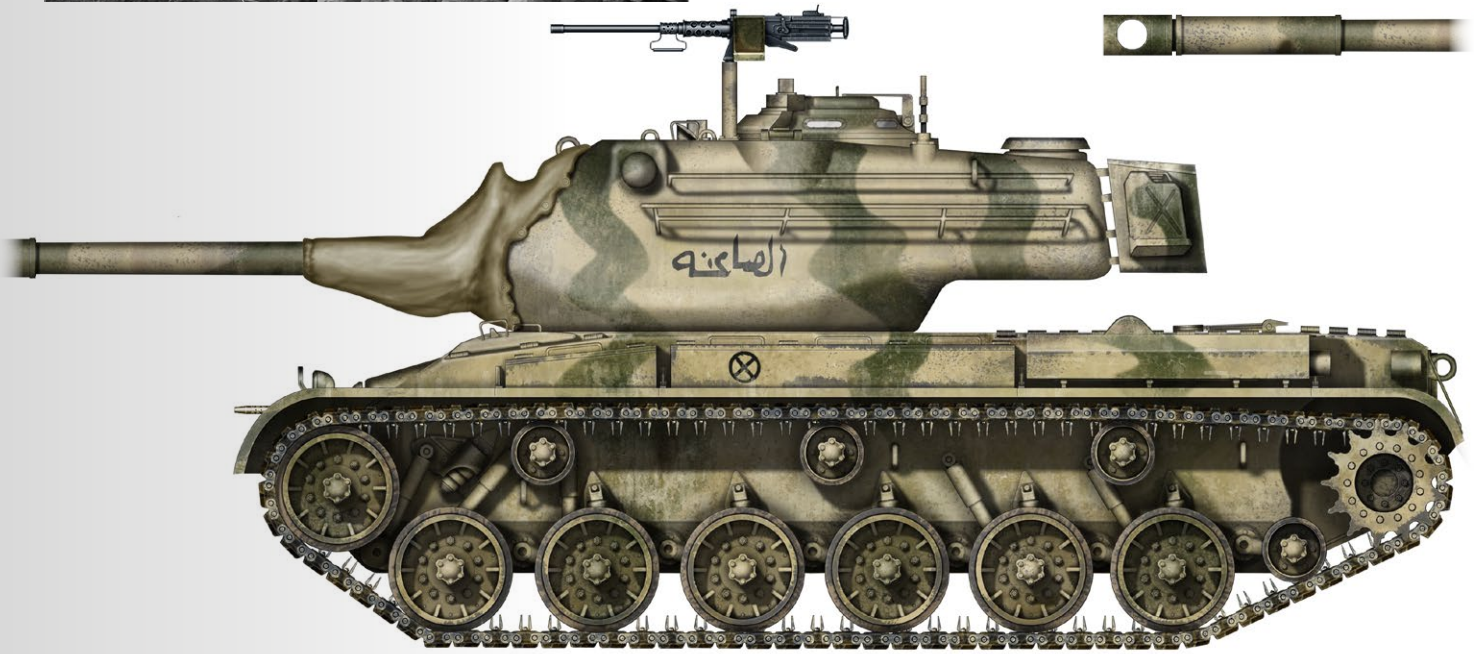
An Algerian BTR-50
with hull mounted DShK 12.7mm machine gun and wheel carriage on the rear deck. The Algerians sent a squadron of fighters and an armoured brigade to fight in the Yom Kippur war.



A Jordanian army ambulance M113 variant,
in typical US sand and green camouflage the large red crescent reveal its medical role.



A Jordanian M47
captured by IDF. On the photo, the Israeli armourers are seen removing equpiment and ammunition from these tanks. At least one of these vehicles was converted by the IDF to a later M48 diesel engine and 105mm gun variant.



A Jordanian M48,
these early petrol engine variants operated alongside M48 A1s and many captured by the in 1967. Of note are the rear mounted external fuel tanks on a quick cradle.

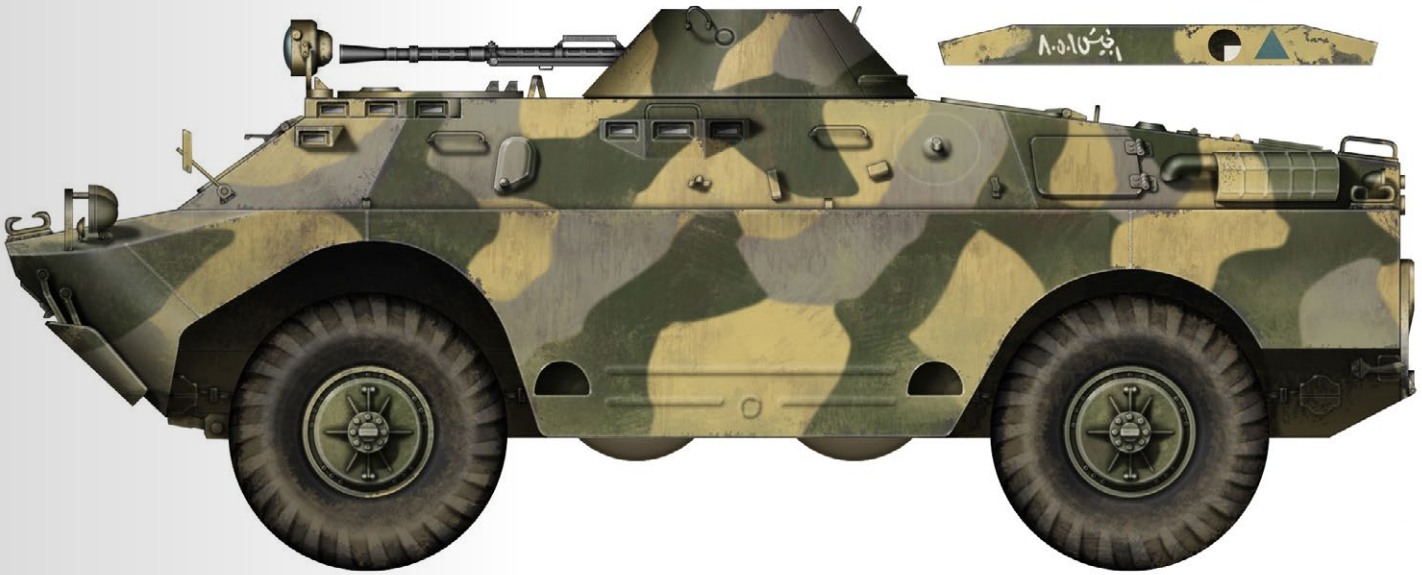
2.4 SYRIAN VEHICLES

Syrian Army camouflage and markings

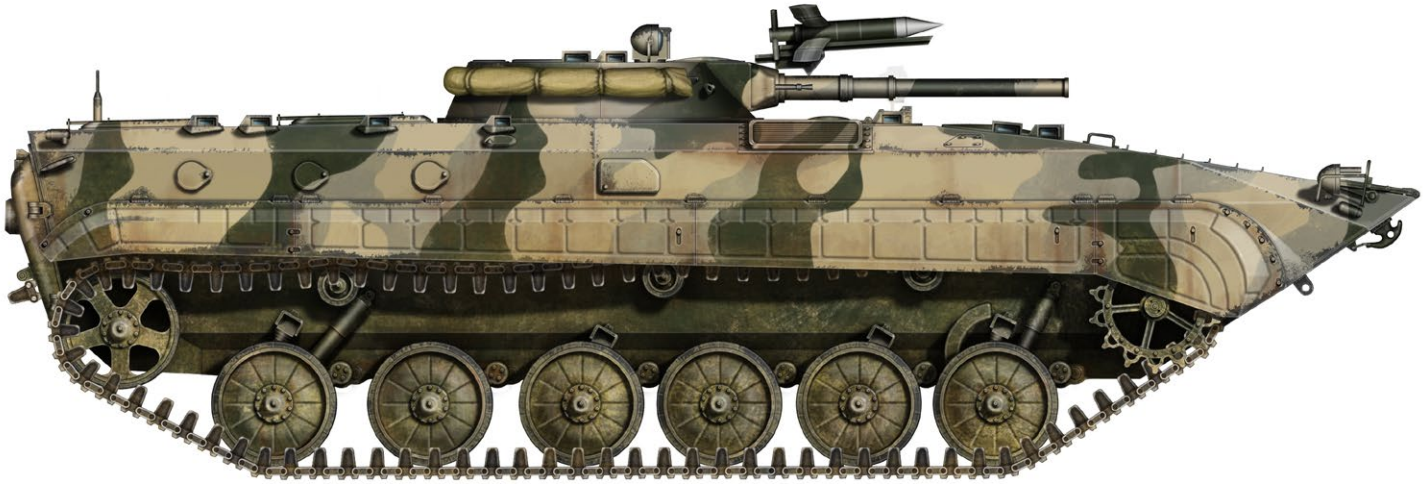
The Syrian army in the early post-independence years used a standard dark green camouflage scheme with large white turret inscriptions painted on turret sides or in the case of StuG IIIs on the machine gun shields. These usually consisted of references to various Syrian martyrs from 1948, coups and history. Large white circular air recognition markings were also added to the turret tops of such tanks as Panzer IVs, T-34-85s and T-54s, this system was retained throughout the 1967 war. The 1973 conflict saw the introduction of new camouflage schemes for the vast armada that the Syrians had now assembled for the task at hand, the retaking of the Golan. The vast majority of Syrian tanks, APCs and light vehicles that took part in the Yom Kippur war used a three tone disruptive pattern scheme using variants of sand, grey and green colour scheme with the grey varying in range from a purple to brown hue depending on how it was mixed. Good examples of this 1973 scheme can be found on photos of BTR-152s, SU-100s and T-54ARs of the time. Many of these vehicles bore a small Arabic inscription on their front right hand side mud guard meaning "army " with small divisional markings made up of coloured triangles and circles in white backgrounds on the left. On the turrets they carried tactical numbers in white, sometimes in white out lined in white rectangular bars such markings have been retained till relatively recently in the Syrian civil war.

The extremely formidable ZSU-23-4 Shilka, these SPAAGs provided excellent low level cover for Arab forces in the early stages of the Yom Kippur war. This Syrian example has been damaged and captured by Israeli forces, hence the Hebrew tagging.

A Syrian BRDM-2 in typical Syrian camouflage of the Yom Kippur war period, this reconnaissance scout car was one of a number of these light vehicles passed by the IDF as pushed further towards down the Damascus road before halting within artillery range of the Syrian capital.

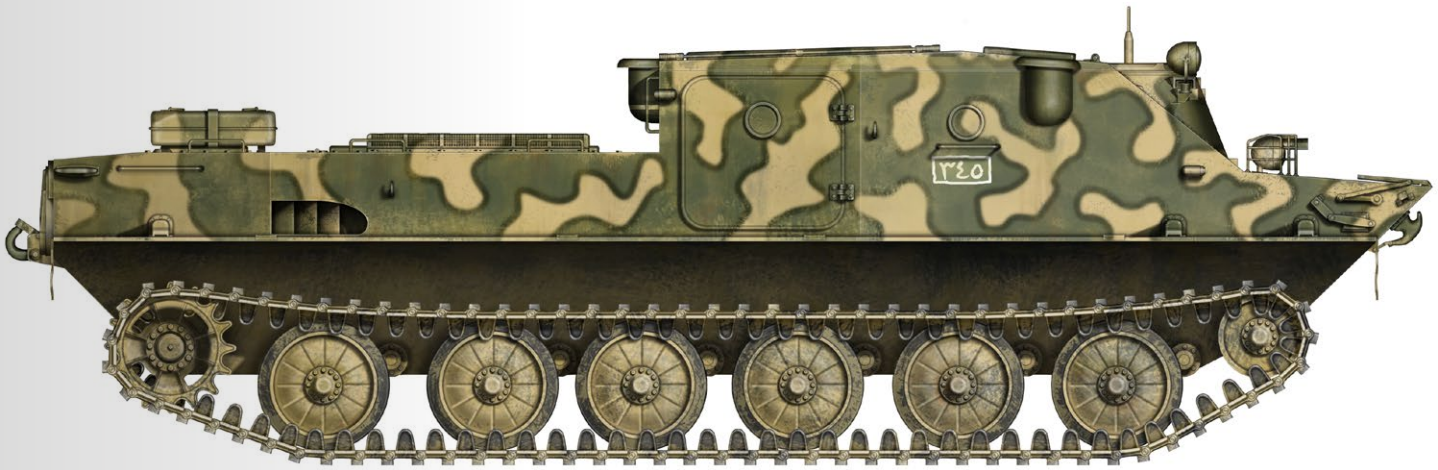


Syrian BMP-1 in typical grey, green and sand camouflage, both Arab armies used large numbers of this IFV in 1973 armed with a 2A28 73mm gun and Sagger wire guided missile launcher, these expensive battle taxis were to prove a disappointment in action.

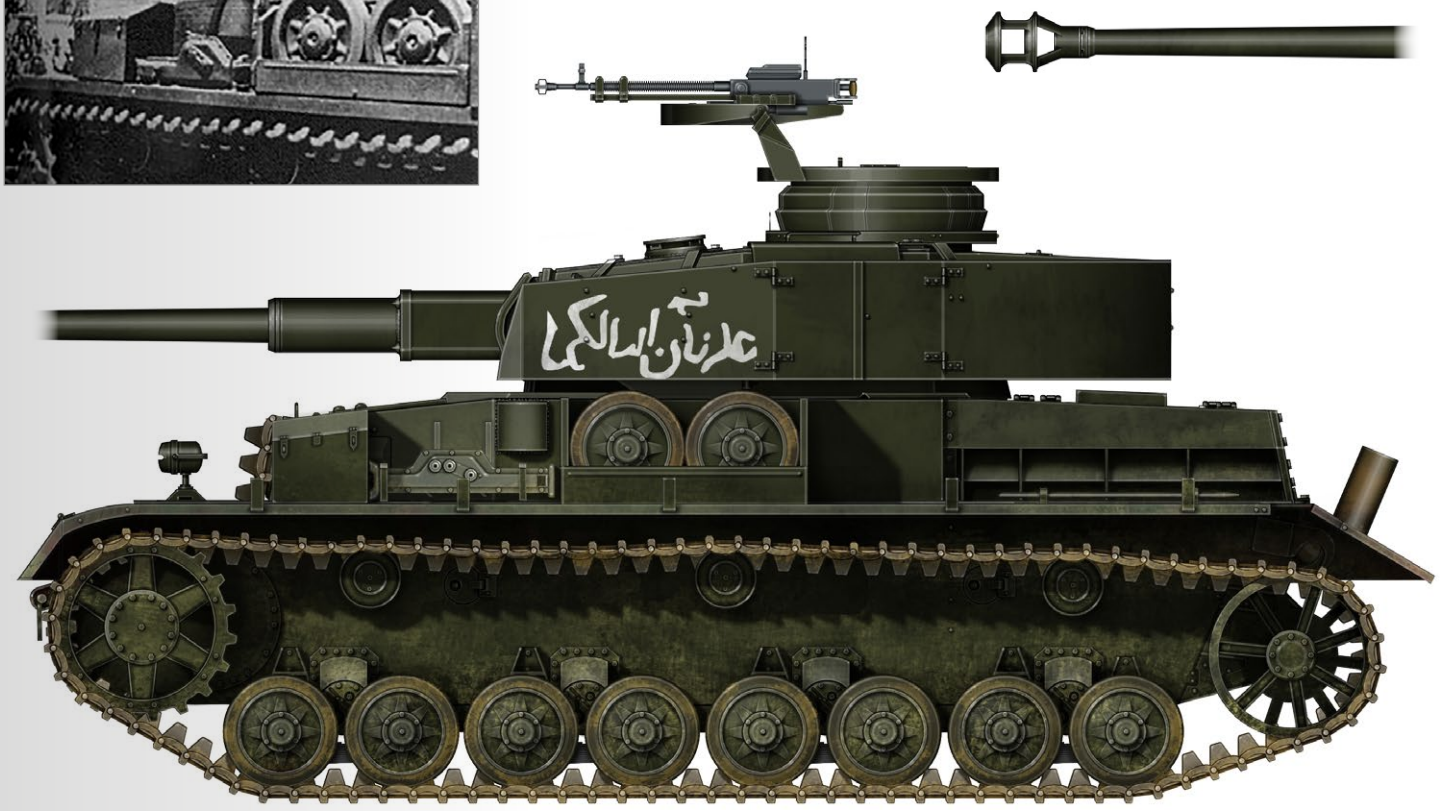


A Syrian BTR-60, these large gasolines powered APCs were used in relatively small numbers compared to the older BTR-152 . After the battle in the Golan some could found burnt out on the roads or caught in the large Israeli anti-tank ditch along the purple line.

A Syrian BTR-50 PK,
these simple rugged amphibious APCs based on the PT-76 were used by all sides in the Yom Kippur war.



A Syrian Pz.Kpfw.IV
as found dug in by attacking IDF forces when they stormed the Golan in 1967, most Syrian Panzer IVs were H and J models coming from Czechoslovakian and French Armor stocks with a small number from Spain.

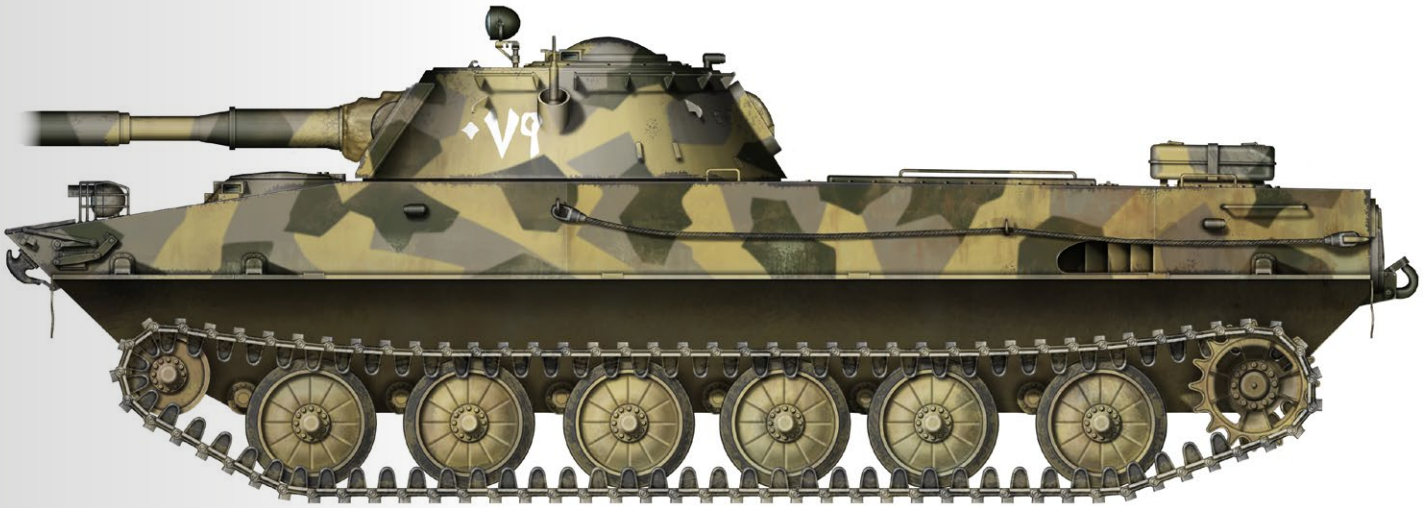


This Syrian BTR-152 APC
was found abandoned on the Golan after the Yom Kippur war with all of its wheels removed bearing its simple vehicle marking and army inscription on the front bumper.

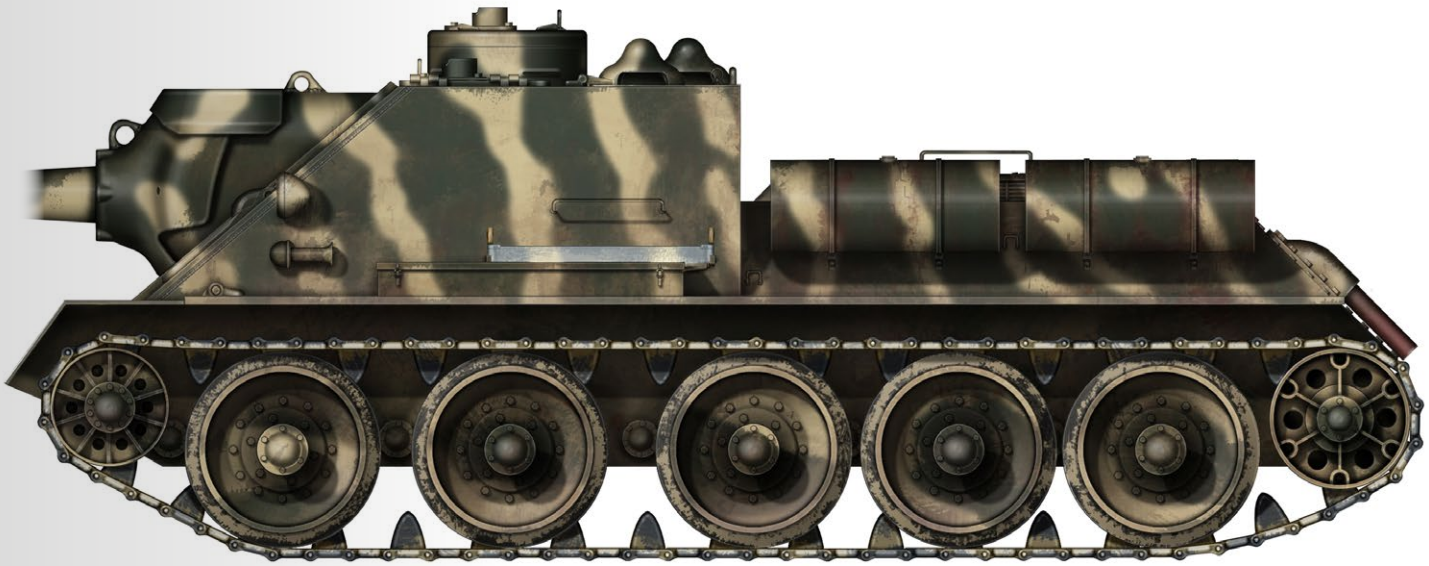
This Syrian BTR-152 APC
is painted in a simple two colour camouflage scheme different from three tone scheme which includes grey, it may have been camouflaged by Soviet factories prior to export.

A Syrian BTR-152 APC,
these simple and robust armoured transporters were the mainstay of Syrian army units for many years not in wars against Israel but in various campaigns in Lebanon too.

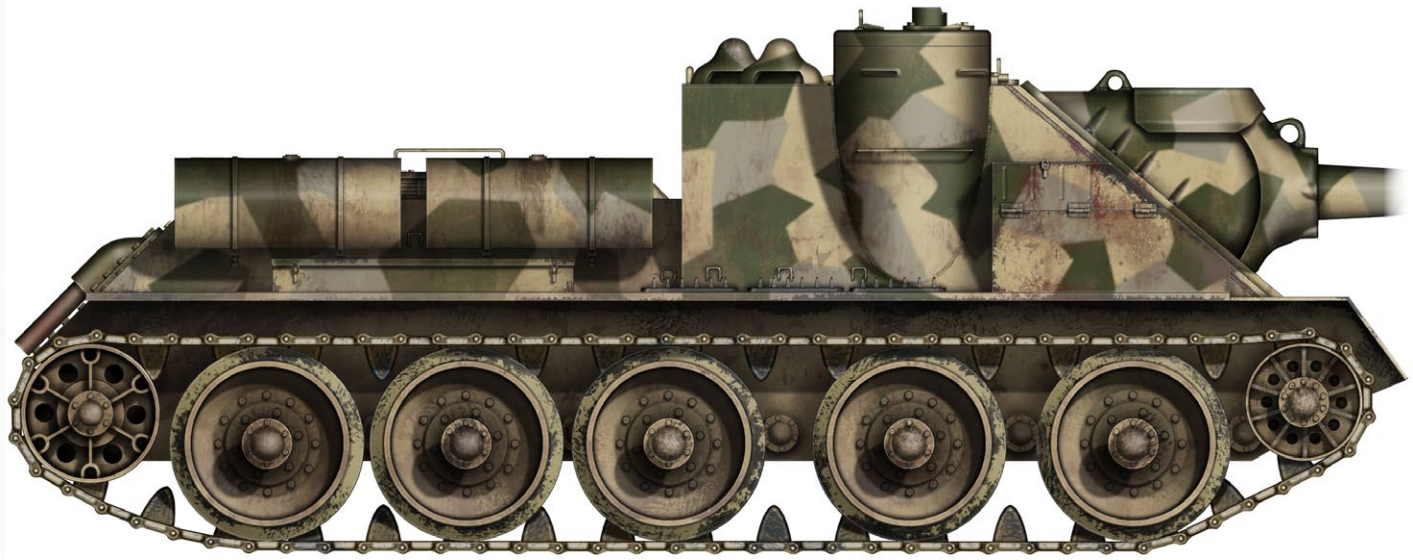
A Syrian PT-76 reconnaissance tank,
small numbers of these lightly armoured amphibious tanks were deployed with each Syrian armoured divisions, their 76mm main gun would have been of little use on the Golan.



Syrian SU-100,
these old tank destroyers were of very limited use in the fighting on the Golan heights but accompanied the more modern Syrian T-54s, T-55s and T-62s as they desperately tried to overwhelm IDF positions.

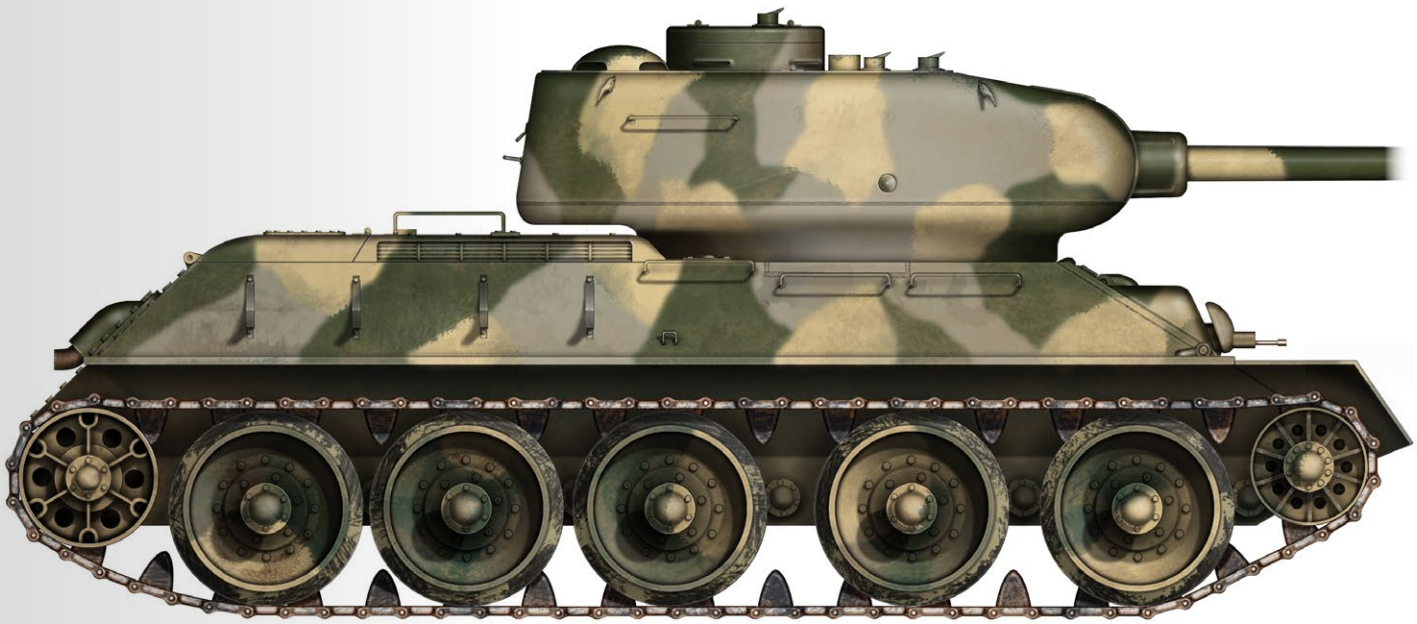


This Syrian SU-100
was one of a number of these old tank destroyers sent in the early waves of attacking armour during the battle of the valley of tears, it is thought that no Israeli tanks were knocked out by these limited traverse vehicles.



This Syrian T-34-85
is a Czechoslovak-built vehicle to which the Syrians added a large framed DShK 12.7 mm AA gun mount to the commander's cupola, on the turret is an inscription to the memory of Martyr Hermez Younes Boutros, a soldier who may have died in a past conflict with Israel or in some coup attempt in Syria. This tank was found relatively intact by IDF forces in 1967.

One of a small number of Czechoslovakian produced T-34-85s used in the Yom Kippur war, this vehicle is one of a number converted by the Israeli army into bunker tanks by removing the engine and cutting a simple entrance in the rear of the vehicle. To this day the Syrian army has T-34-85s in concrete bunkers around Quneitra on their side of the Golan height.

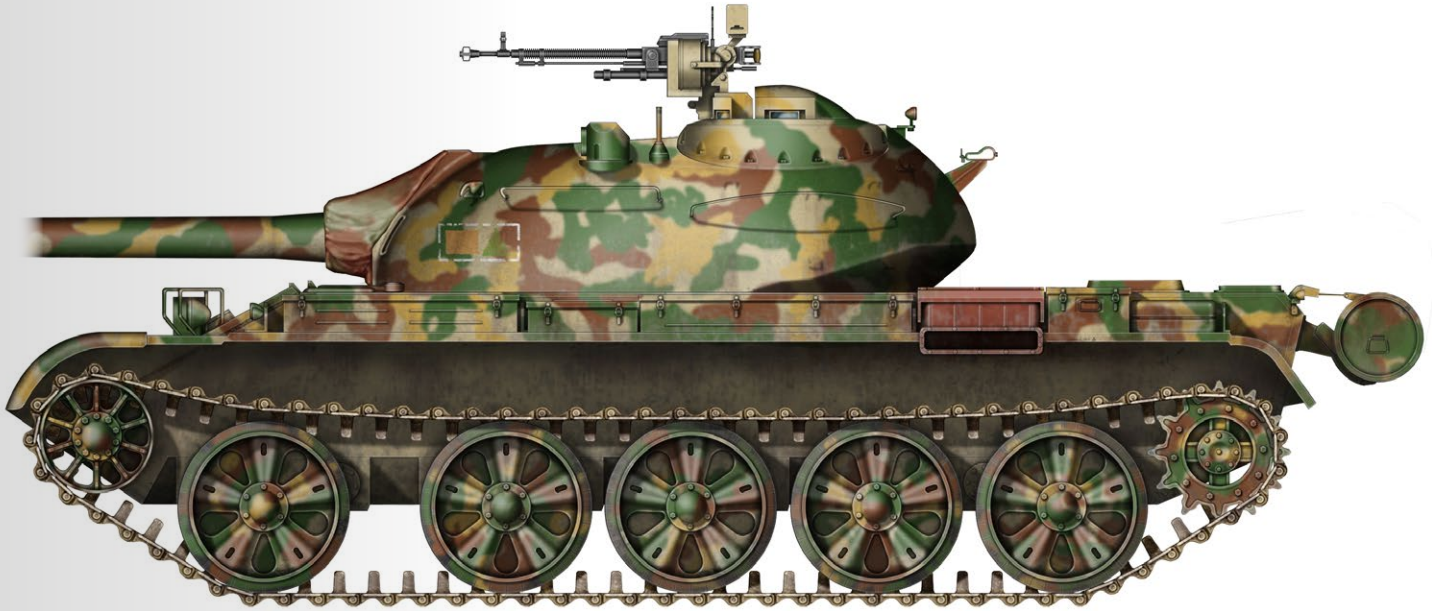


This Syrian T-34-85 with DShK 12.7mm gun mount has had mud hand prints added to its turret and hull to create a rather interesting camo scheme, it's inspiration reads Martyr Kamel Ali Moustafai.

A Syrian T-54-III,
this early model has been covered in mud in an attempt to camouflage the vehicle from Israeli aircraft and armour. Of note are the early spider web wheels and smooth tank.

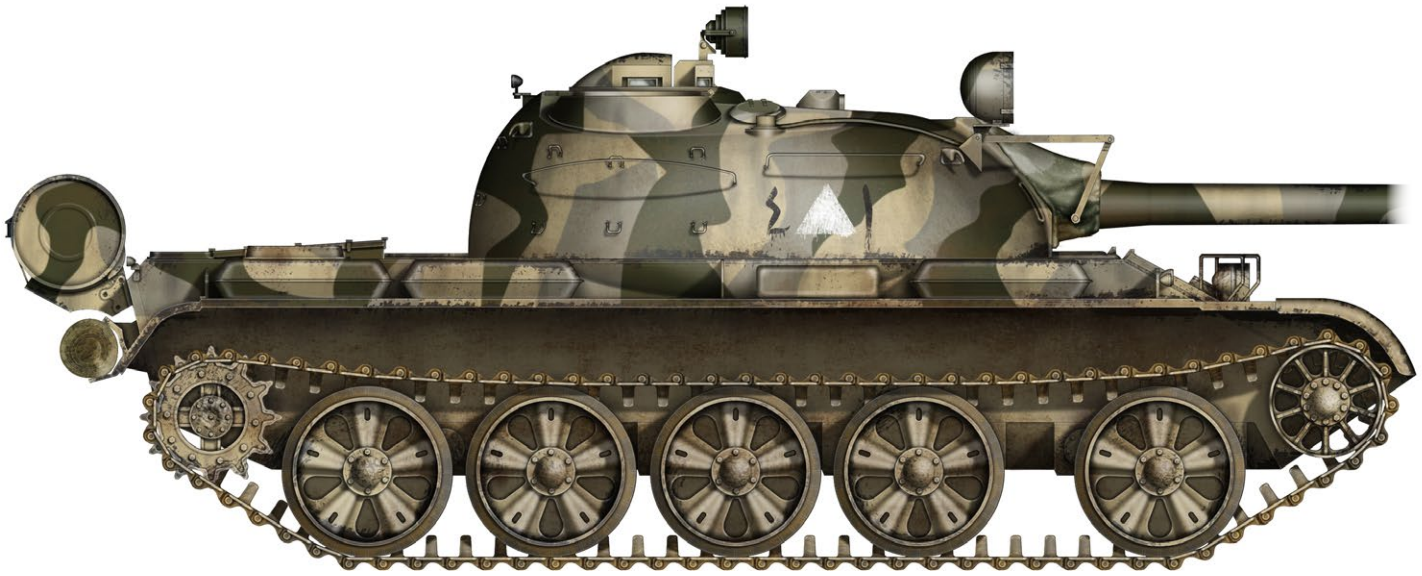
This Syrian army T-54 Model 1951,
originally painted in Soviet green has had mud spread over it in wavy form. The inscription is dedicated to Martyr Ehsan Kam El Maz.

A multi camouflaged T-54 Model 1949
used by Syrian forces when the 5th infantry Division reinforced with two armor brigades intervened in Jordan to assist the PLO forces in 1970 most were destroyed by Jordanian air force Hawker hunters.

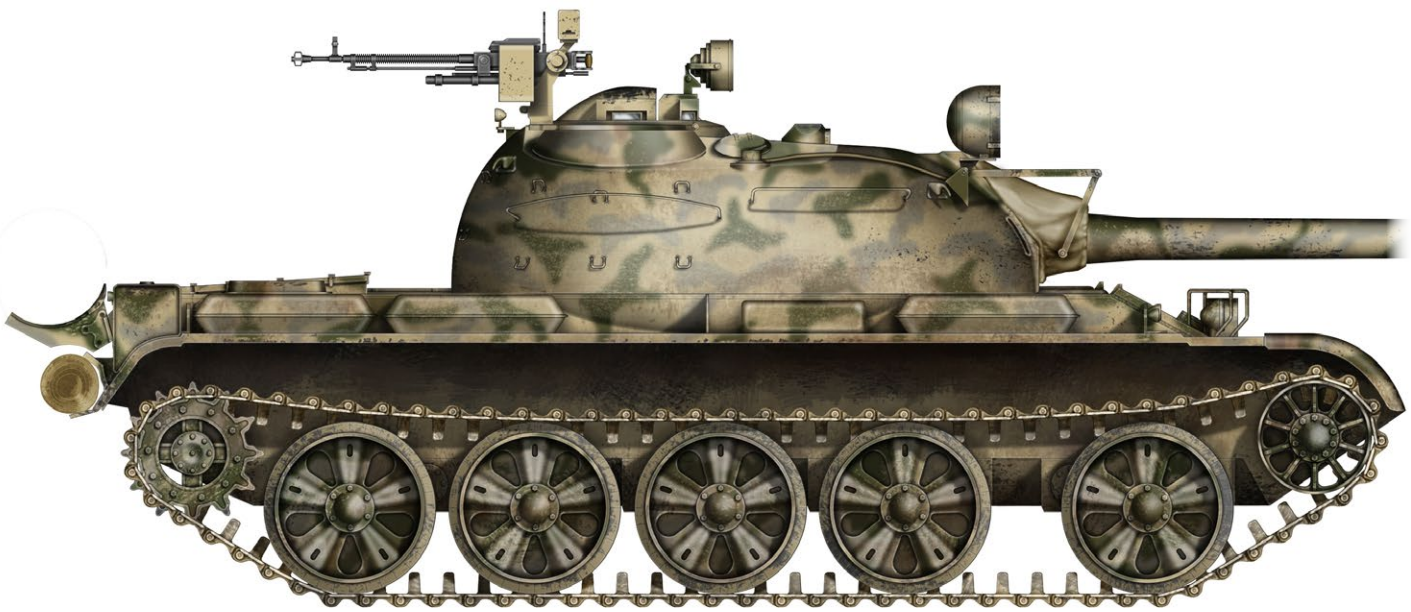


A typical Syrian T-55A
in its 1973 camouflage, tank 297 abandoned on the Golan heights wears a three colour scheme of grey, green and sand.

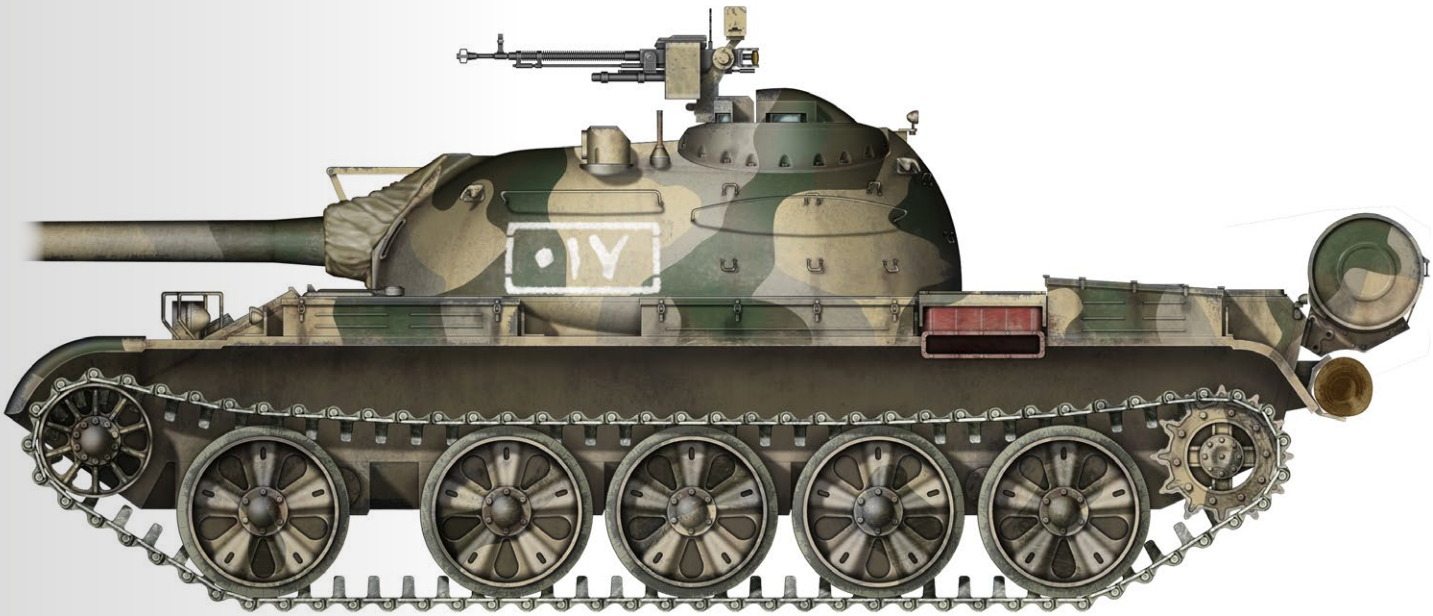
A Syrian T-55 turret number 41
with white unit marking Triangle was damaged in battle and abandoned on the Golan Heights.



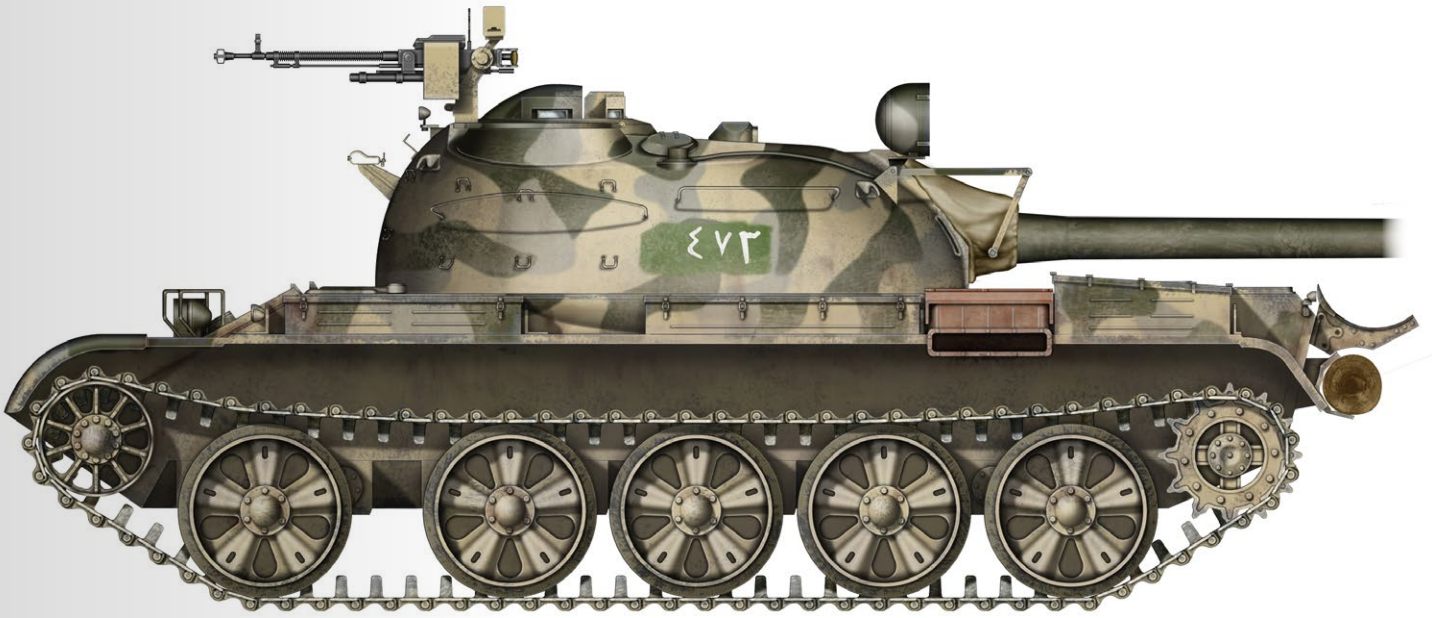
A Syrian T-55
wearing a rather faded or light camouflage scheme, this particular vehicle was found abandoned on the Golan Heights by IDF forces.



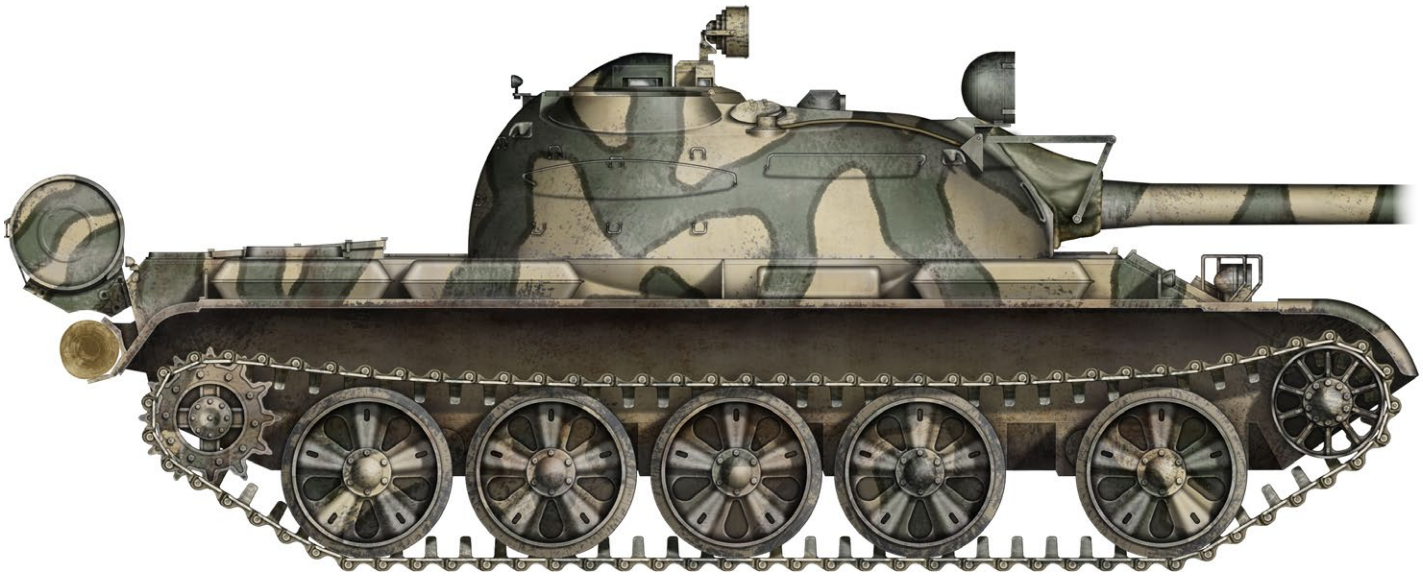
This Syrian T-54AR
was captured intact by Israeli forces; tank 017 was one of 1430 tanks produced by Czechoslovakian Martin works for domestic and foreign customers.



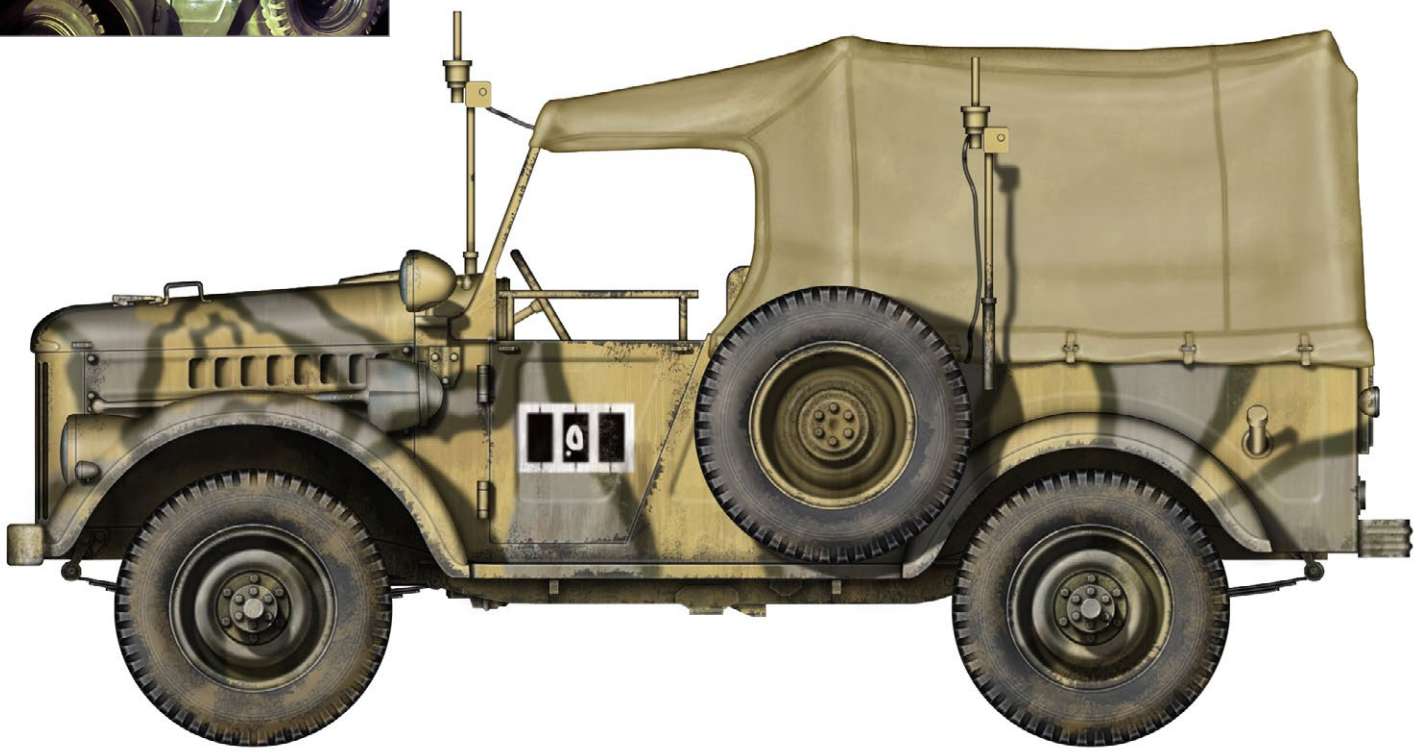
Another Syrian T-54AR,
variant a number of which were used in Syrian attempts to storm the Golan Heights, the R stands for Rieka or River in Czech, this version has distinct oval shaped decking above the engine bay.



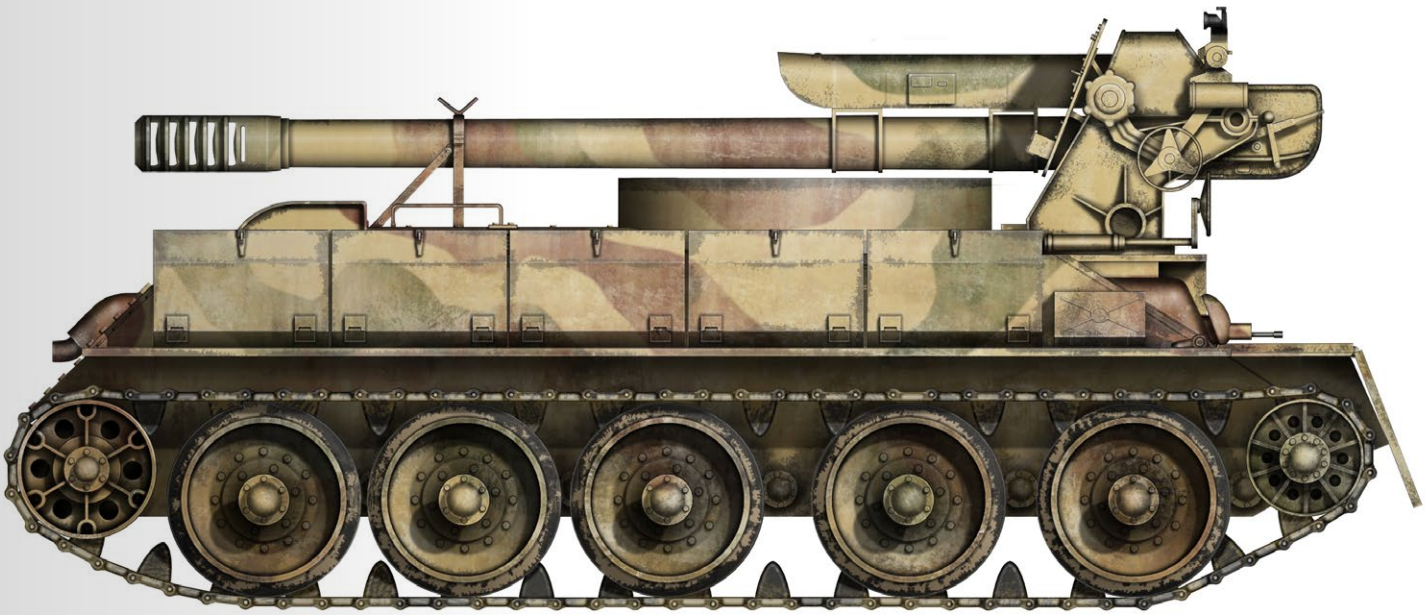
This famous Syrian T-55 tank
abandoned on a road in the Golan bears an interesting three colour camouflage scheme out lined in a thin black spray outline all over similar to the camouflage of French army schemes in early world war two.



A Syrian GAZ-69
these simple rugged light vehicles were used throughout the Middle East and were the basis of a number of other variants including radio and AT-1 Snapper launching variants. This vehicle is one of many captured by the IDF.



A Syrian T-34/D30 SPG,
loaded on what looks like an M9 trailer unit normally towed by the Diamond T tractor unit, but it could also be a Czechoslovakian copy used by Syria. Of note is the Centurion tank towing the trackless M50 155mm SPG in the background.

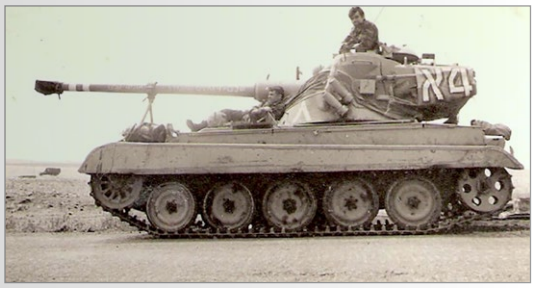


T-62 Model 1972
this particular tank is rare in having a BTU bulldozer unit normally associated with the T-55 series mounted on front glacis plate.

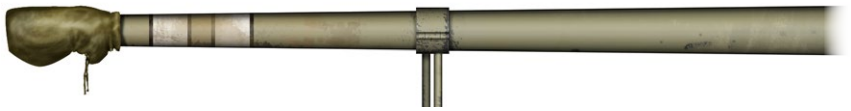
2.5 ISRAELI VEHICLES

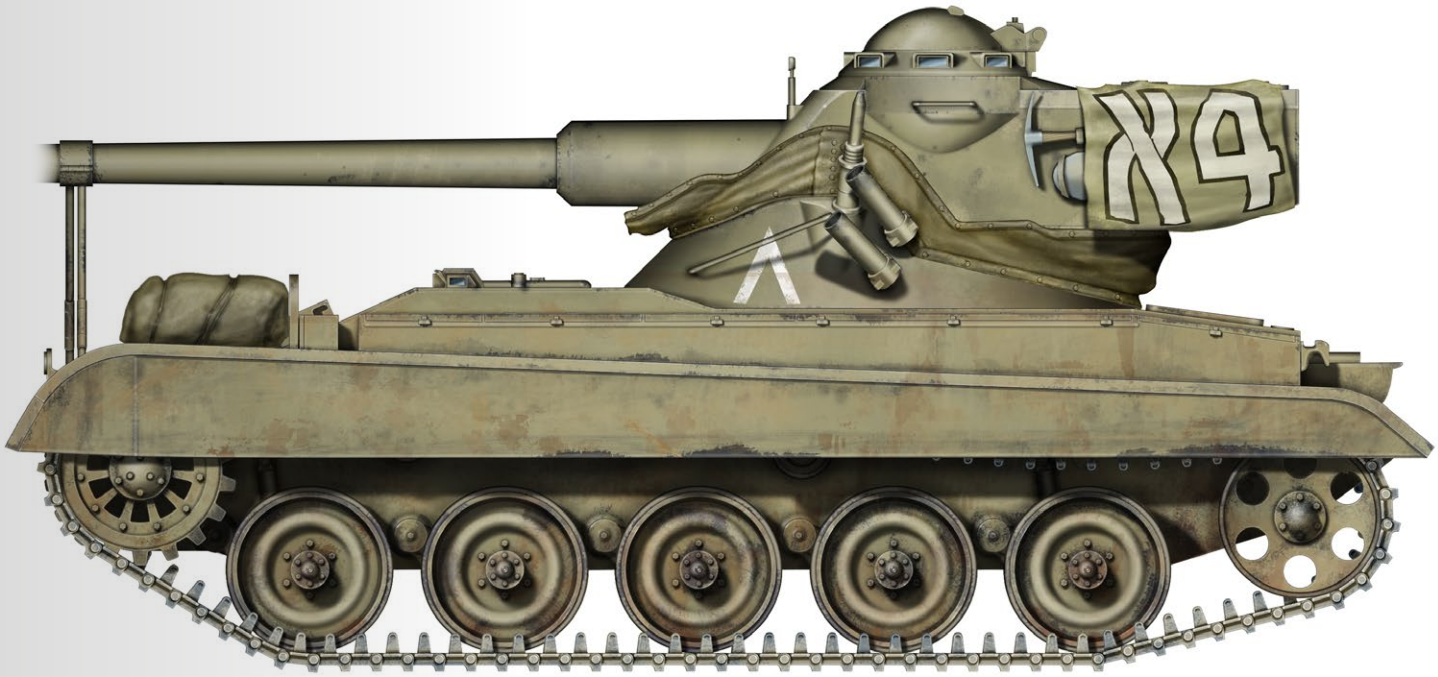
IDF colours and markings

The IDF has gone against the grain of most in the region and unlike her opponents not gone for a two or three tone camouflage system; instead the Israelis have opted for a series of monochromatic camouflage schemes. Early Israeli camouflage consisted of an overall standard Olive drab finish similar to the French schemes of the time. Simple markings like the three white arrows of Southern Command were added to turret sides, while distinctive IDF licence plates were painted on the front and rear of AFVs. On early VVSS M50s and AMX 13s air recognition markings of blue "X"s in white circles or white surrounds were also added. Later by 1967 the IDF switched to a sand grey scheme with vehicles such as M3 Half tracks, AMX-13s and various Sherman types receiving white air recognition stripes or "T" on their bonnets or turrets. A series of white chevrons were also introduced to the turrets or side armour of Pattons and Centurions to indicate the various commands depending on the direction of the "V" added to this was the use in 1973 and later in 1982 of fabric colour panels attached to the turrets tops or stowage cages during operations. Other markings consisted of white stripes around the gun barrels representing first, second or third company, small unit markings and metal and painted IDF licence plates, metal to help id the vehicle in the event of major damage during battle.

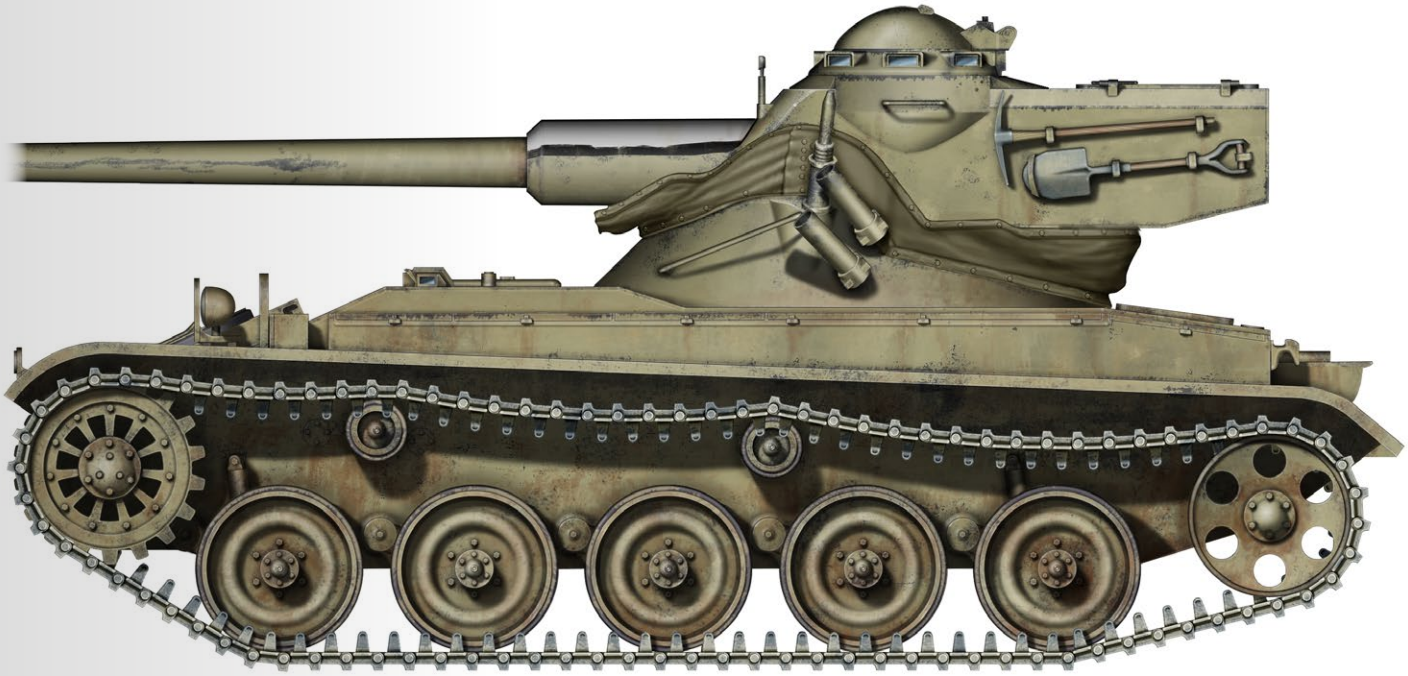


One of the first batch of AMX-13
to see service with the IDF were these variants with side sand shields used in operation Kadesh in 1956.

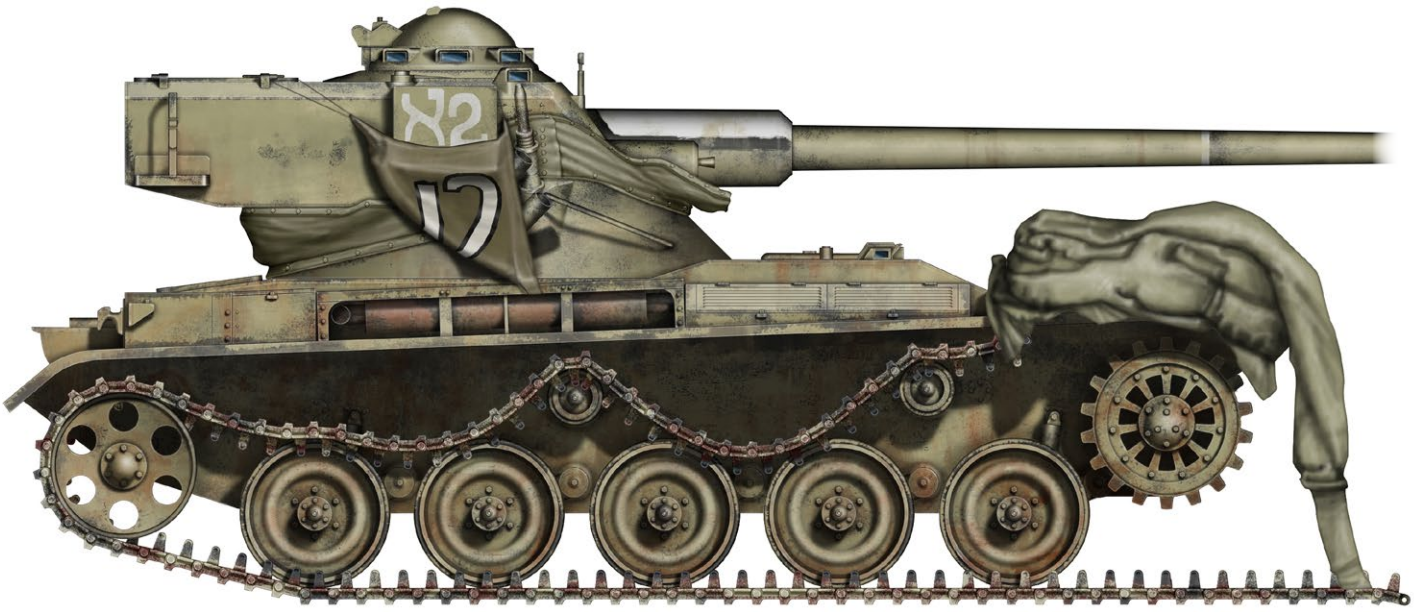




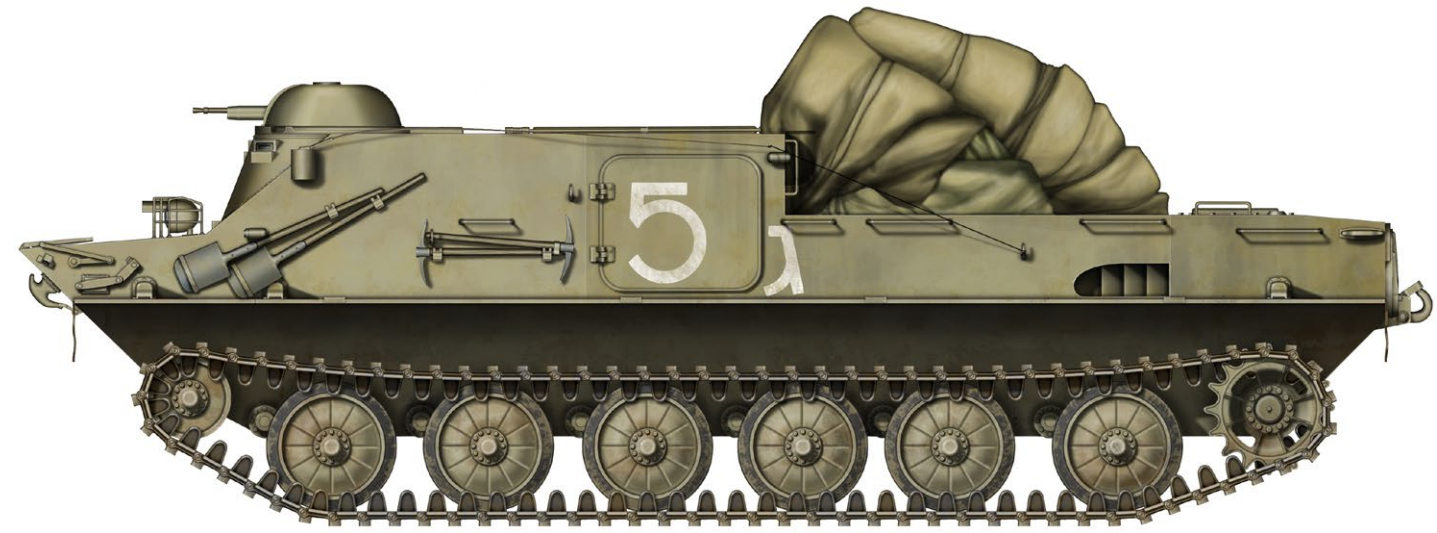
After operating against Egypt in 1956 Israeli AMX-13s
saw action again in 1967 against Jordanian, Egyptian and Syrian forces, at this stage it was realised that the AMX-13 was too lightly armoured for combat with modern tanks and the AMX-13s were sold off to Singapore by 1969.



A battle damaged Israeli AMX-13
these thinly armoured French tanks suffered too many casualties to Egyptian Armor at Rafah junction and Jiradi pass but also in the Golan battles and the tanks were sold off to Singapore after the Six day war.

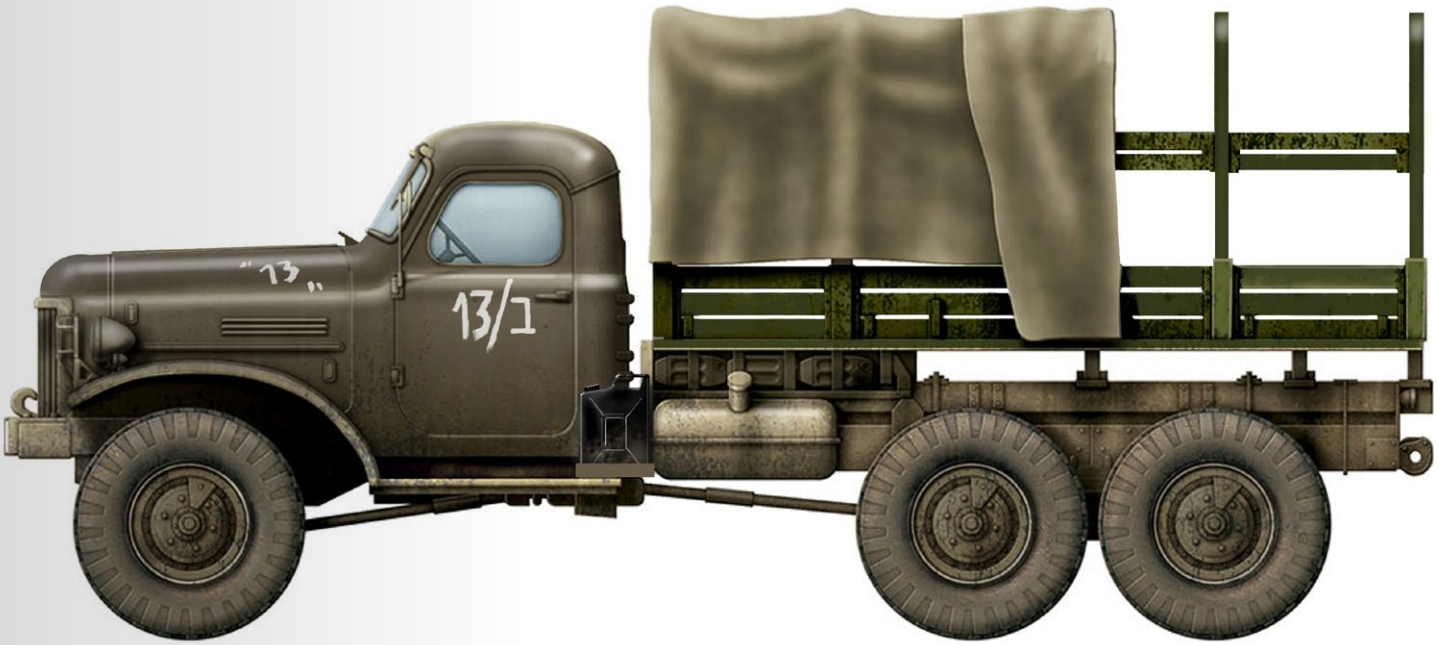


An Israeli OT-62 /TOPAS,
these Czechoslovakian APCs were originally supplied to Egyptian forces before being taken in action by the IDF many had FN GPMG mounts added later.

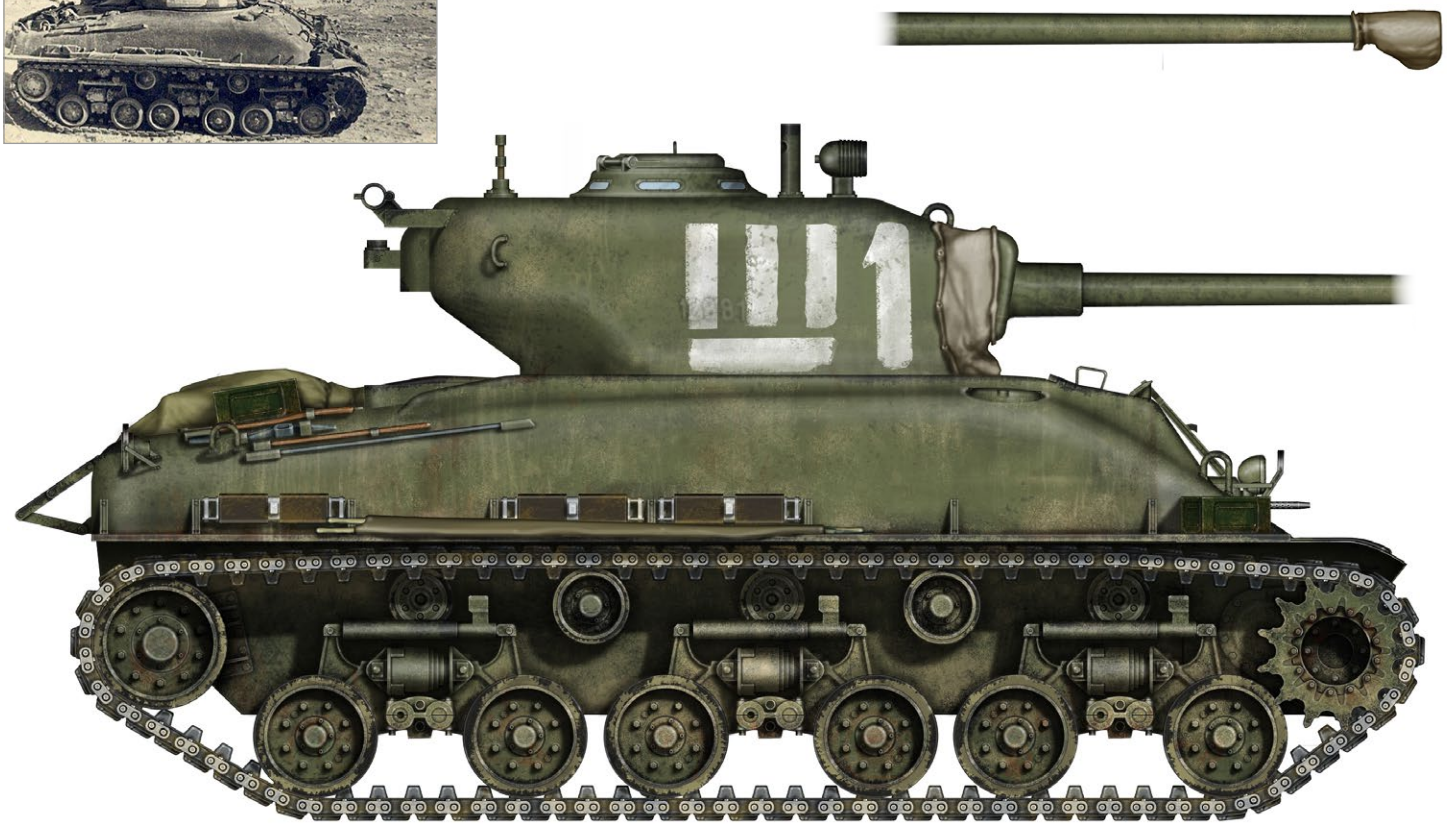


An Israeli BTR-50,
this ex Egyptian APC was to see much use in IDF service during the war of attrition and Yom Kippur war, this variant has been up armed with FN GPMGs.

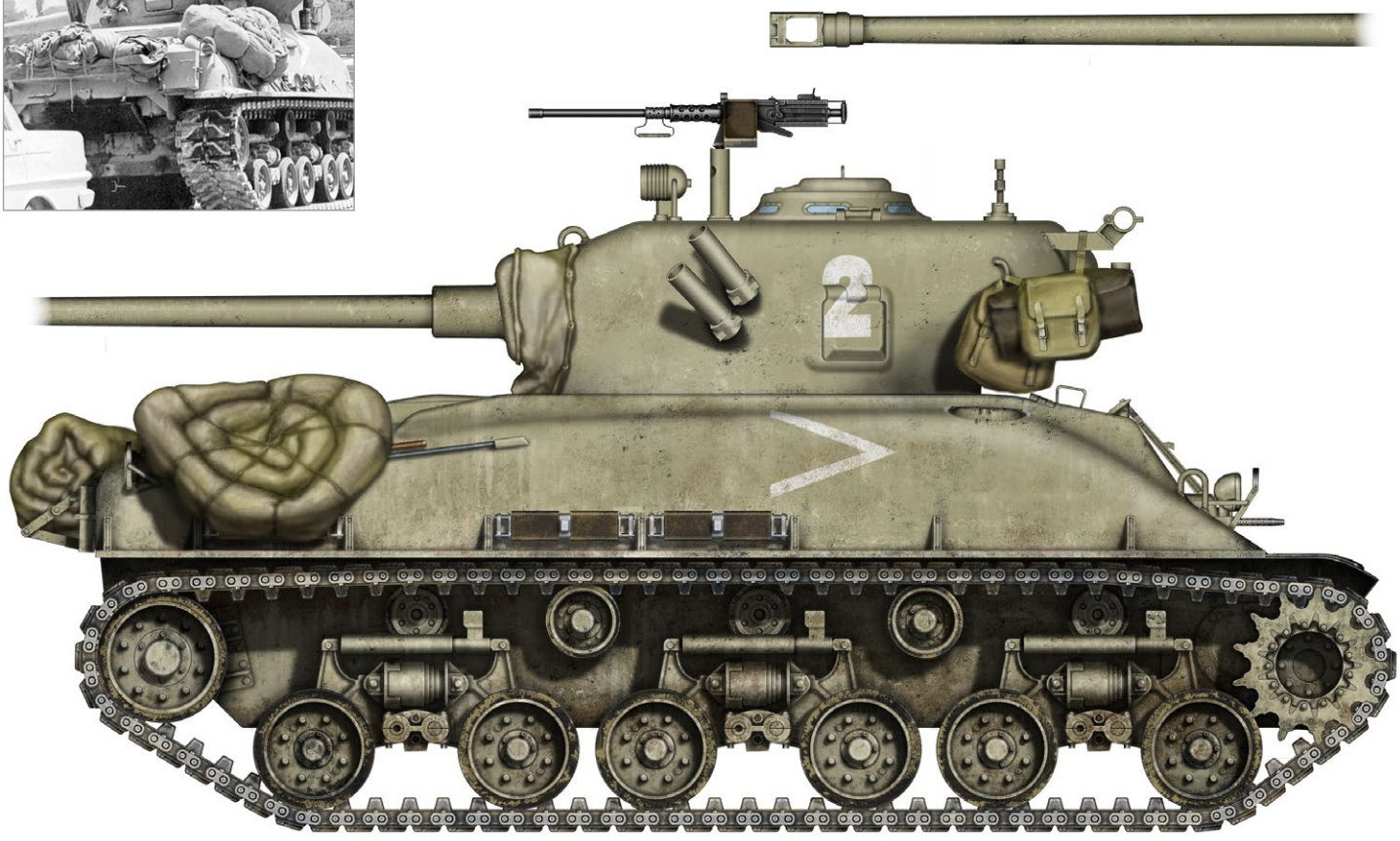
A newly captured Zil-157 2.5 ton 6x6 truck
in IDF service, these trucks were used in a variety of roles from general transport to mounting rocket launchers of various calibres to tow high altitude SAM 2s.



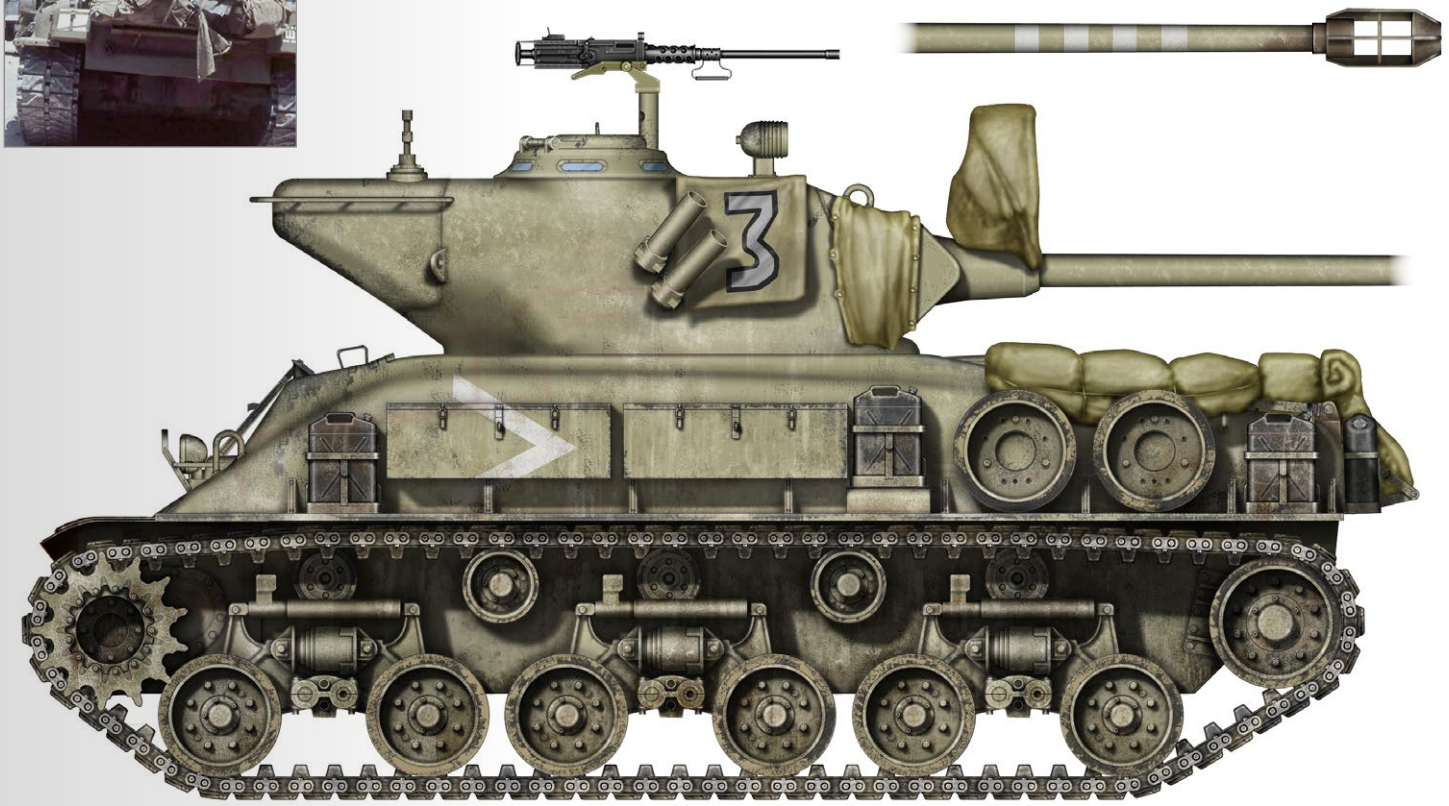
An Israeli M1 Sherman
command tank with M4A1 hull and HVSS seen during manoeuvres in 1961.



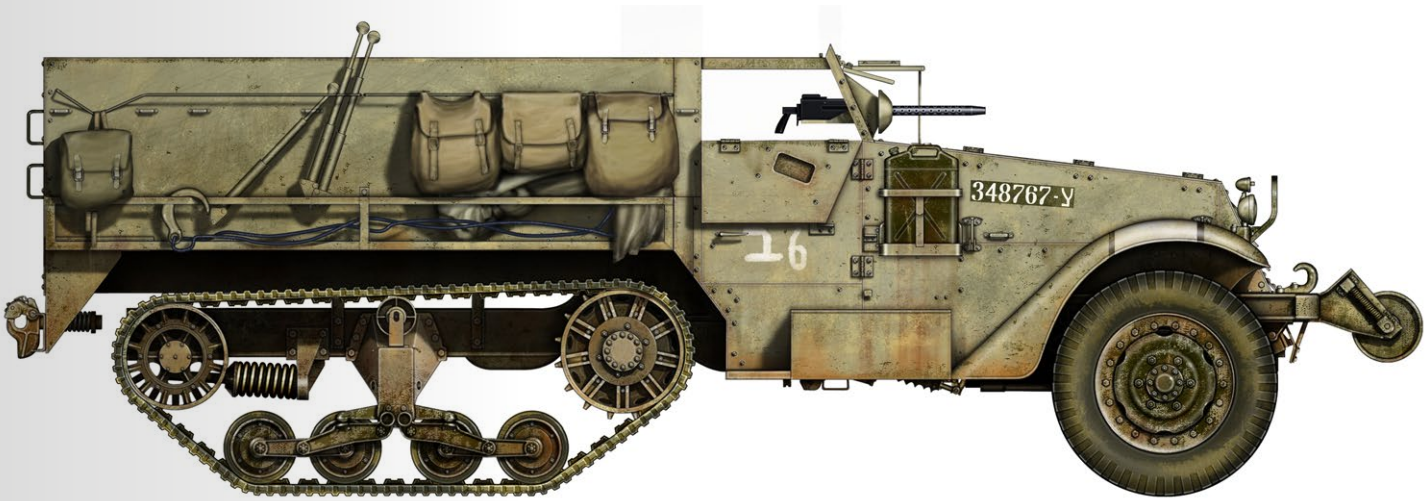
An Israeli M1 Sherman
showing a typical IDF stowage layout found on these tanks, small numbers of these tanks would later be supplied to Uganda.



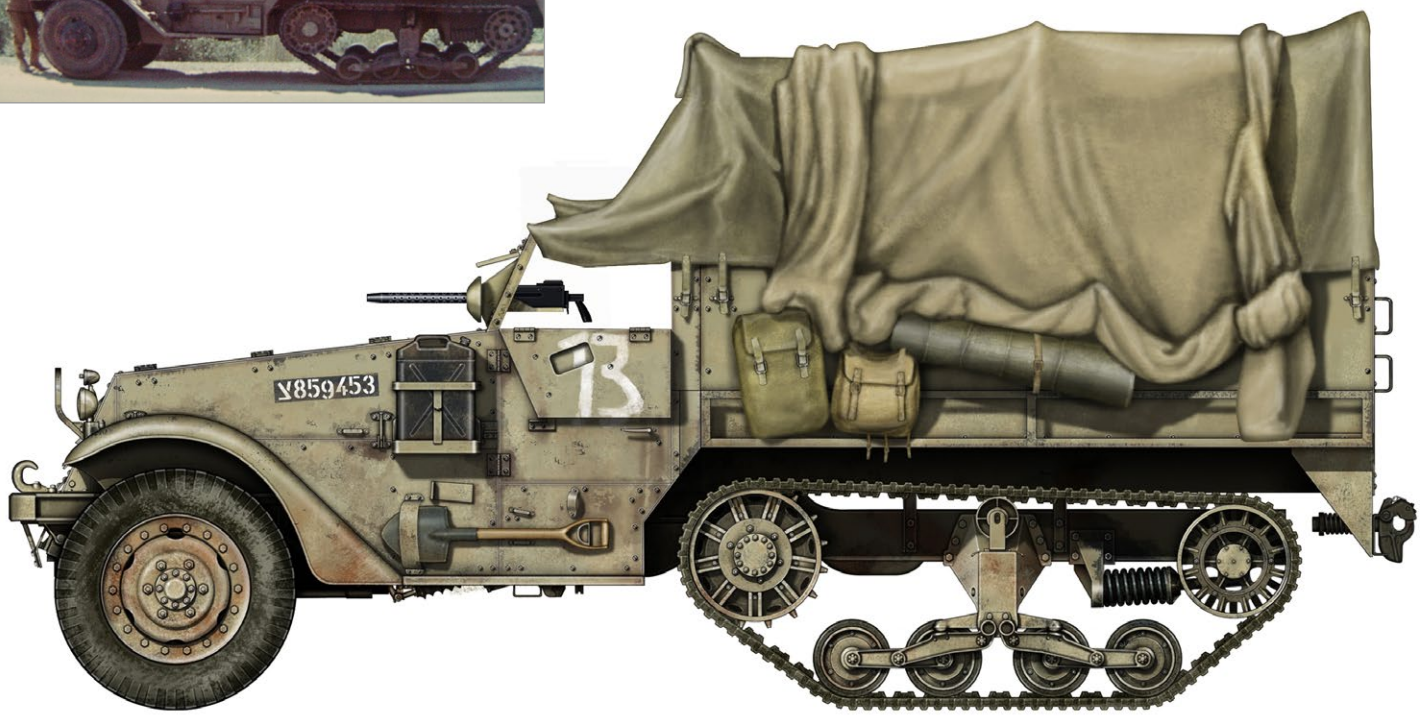
An Israeli M51,
these powerfully armed Sherman variants mounted a cut down version of the French 105mm main gun found in the AMX-30 but with shorter ammunition and breach. These tanks were a common sight in this configuration with the turret traversed to the rear as they moved up and down the high ways of Israel to various battle fronts in 67 and 73



A typical IDF halftrack,
these World War Two APCs were heavily modified and like the Sherman series in Israeli service used in a multitude of different roles. Of note is front mounted .30 Cal machine gun standard on IDF half-tracks of all types.

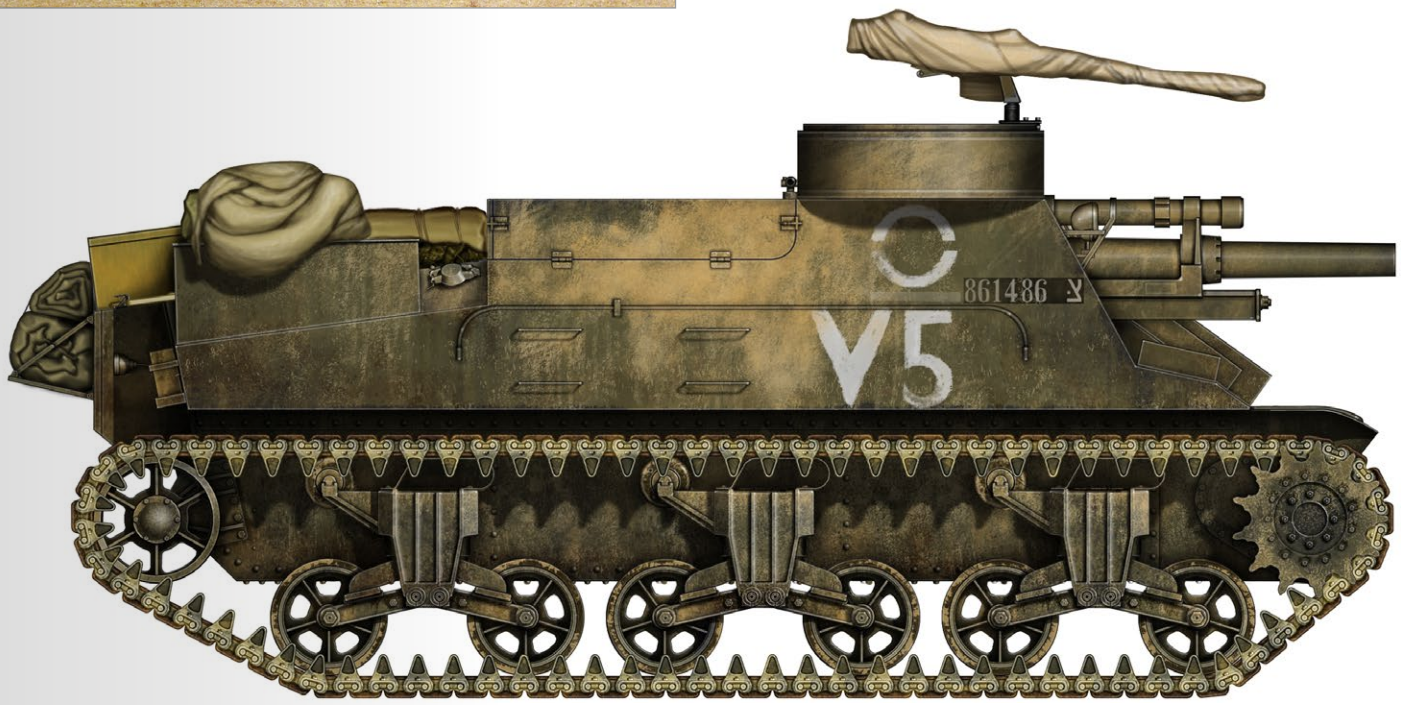


A heavily laden M3 halftrack
in typical IDF layout during war time. Israeli forces for carrying large amounts of extra stowage on the outside of all of their vehicles.

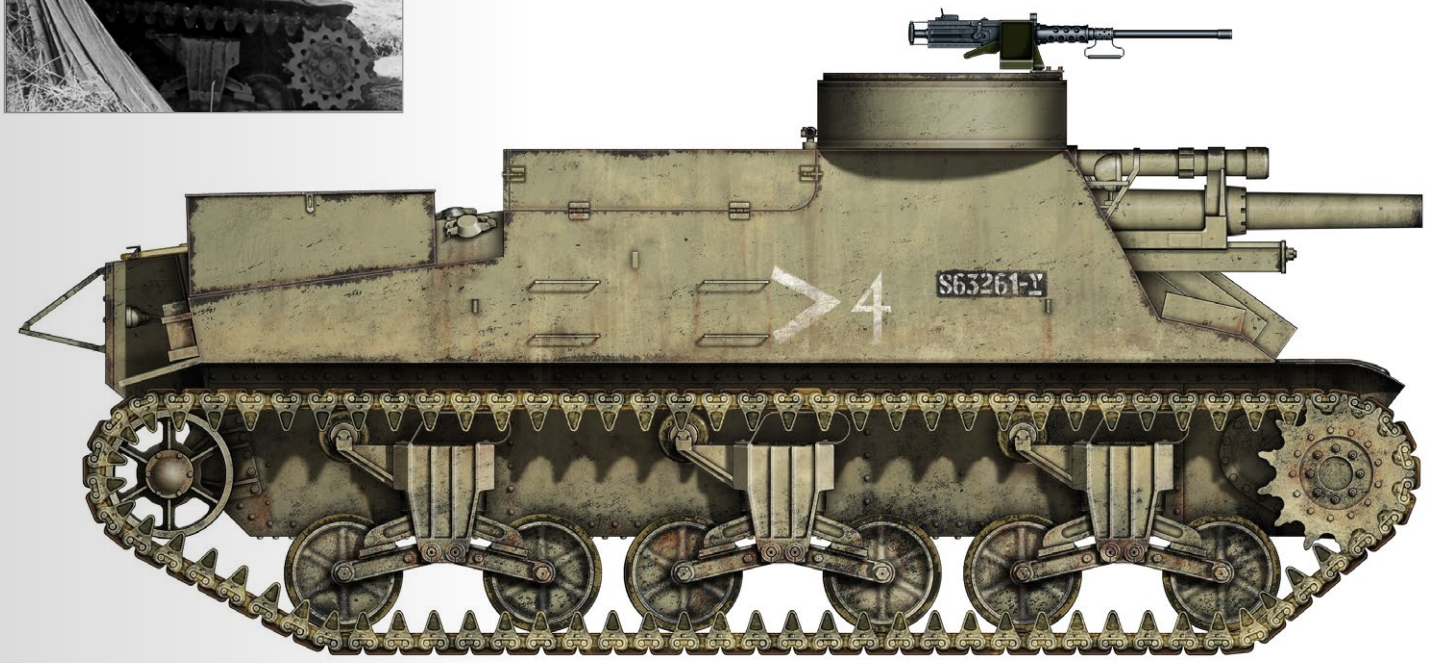


An IDF M3 halftrack
with a single mounted 20mm Hispano -Suiza HS .404 cannon these powerful guns removed from obsolete fighter aircraft guns give this old APCs a powerful extra punch.

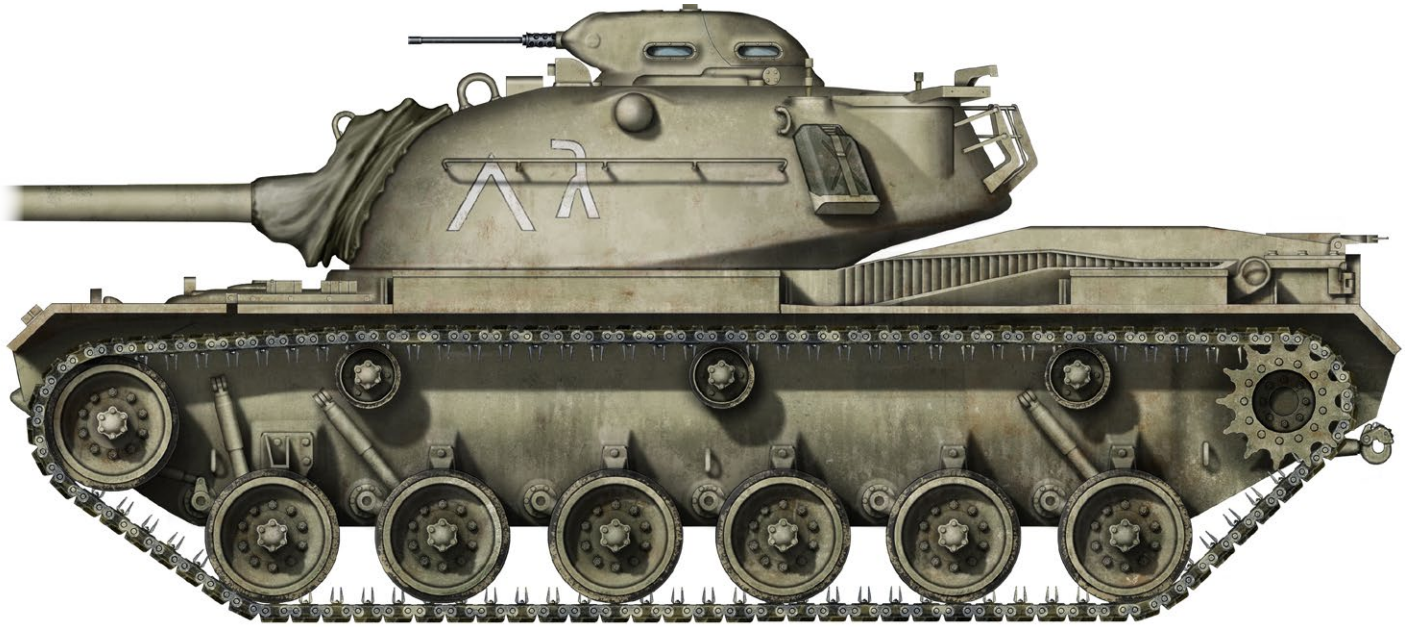
A heavily weathered M7 Priest 105mm SPG in IDF
olive drab during 1967, these World War vintage guns saw service with the Israeli forces for a number of years before being replaced with the indigenous M50 155mm SPG.



A solid road wheel M7 Priest
in Israeli Sinai grey, the Israelis made minor modifications to this old warrior in terms of the driver's vision port and adding a basic travel lock for the main gun.

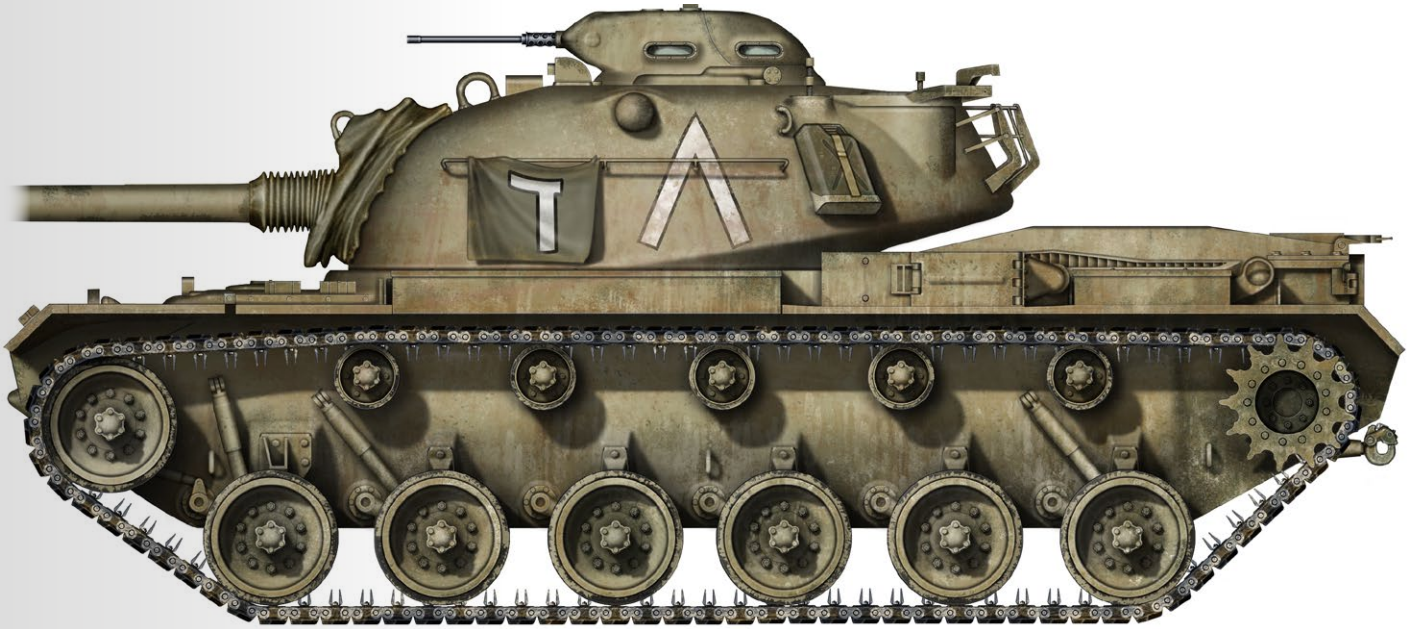


An early M48A2
variant as delivered to Israel by Germany and the USA, another source of M48s was battle field captures from Jordan who lost nearly 100 M48 and M48A1s to the IDF in 1967.

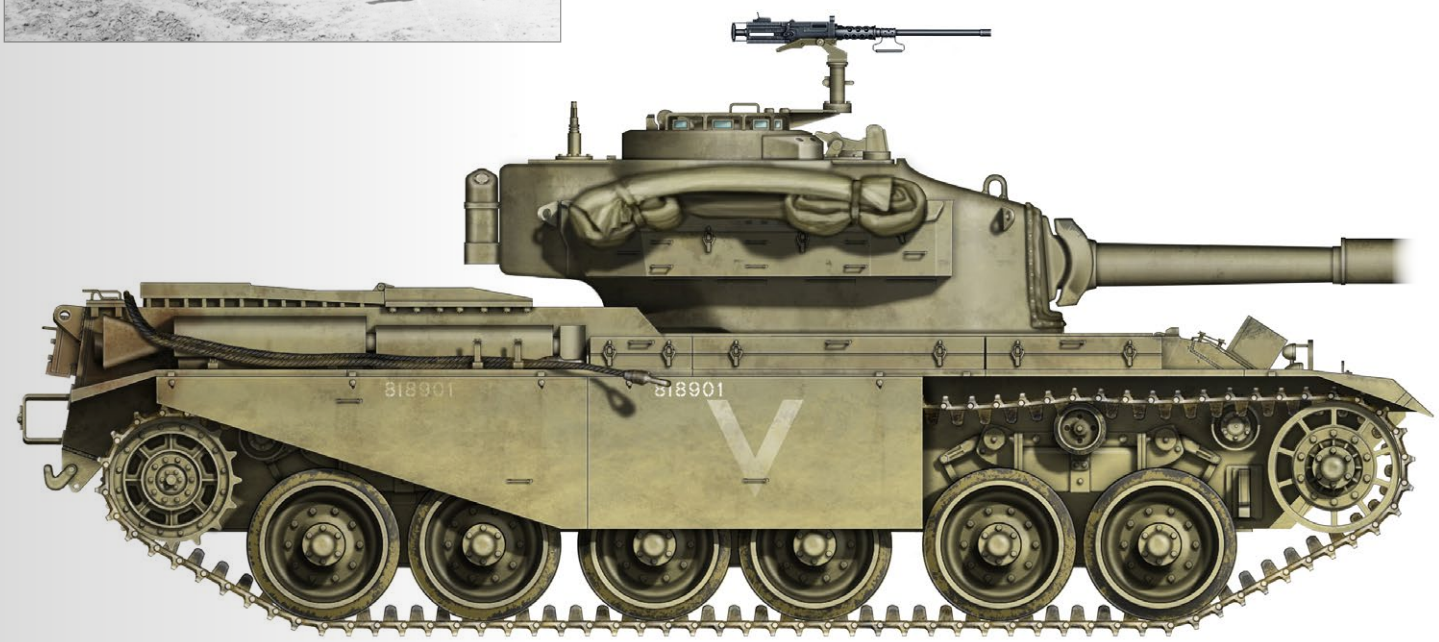


An updated M48A2
in active service in the Sinai in 1973, this Magach 3 has a new L7 105mm gun and has had its original US M1 cupola replaced with an Israeli Urdon cupola.

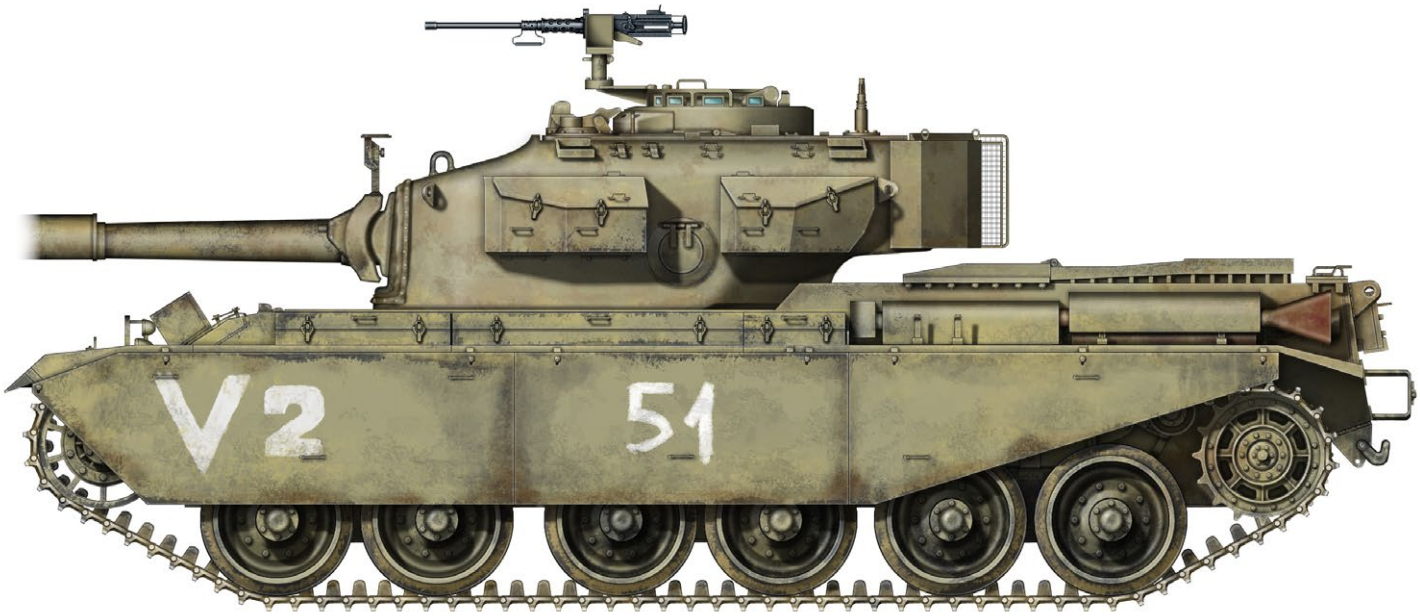
An Israeli M48A3
with original US M1 cupola and 90mm main gun as used in the Six day war. Of note is the temporary unit markings printed on fabric attached to the side of the turret.



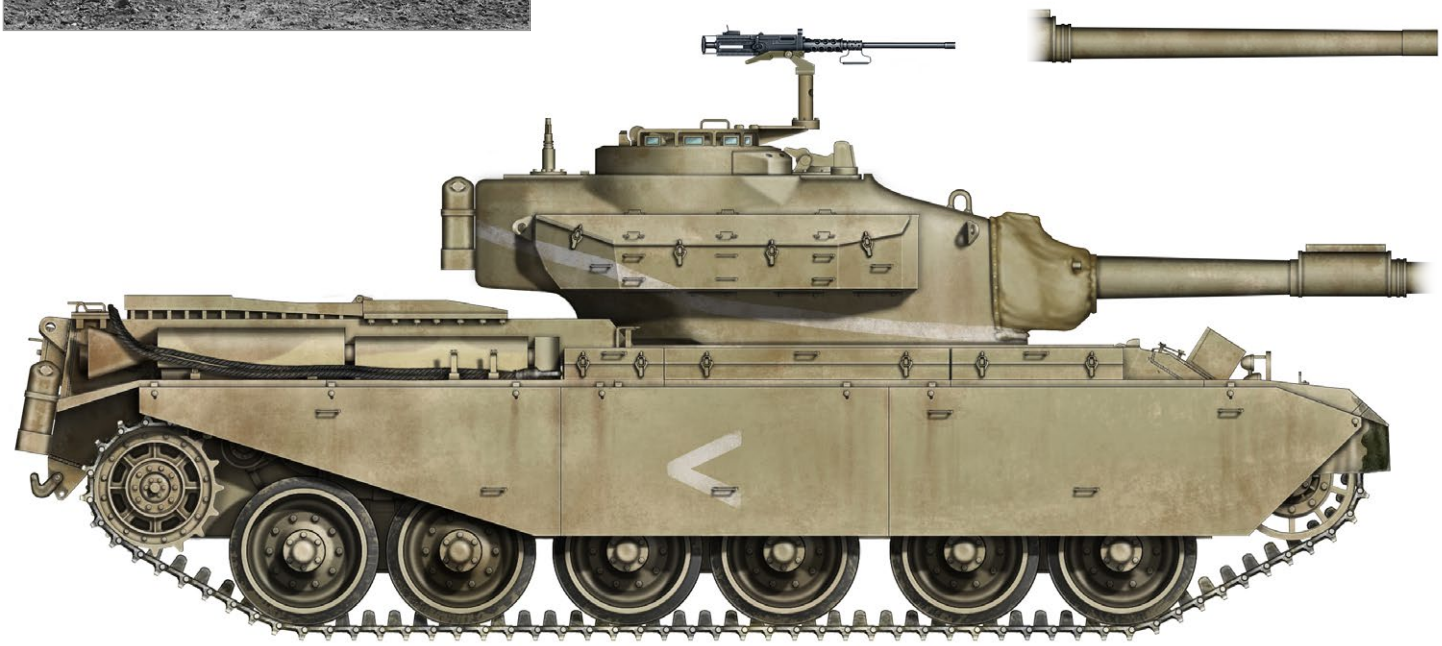
An Israeli Centurion tank,
with original Meteor petrol engine but with L7 105mm main gun instead of the original 20 Pounder. A large percentage of the Centurions serving in the Golan in 1973 were fitted out in this fashion.



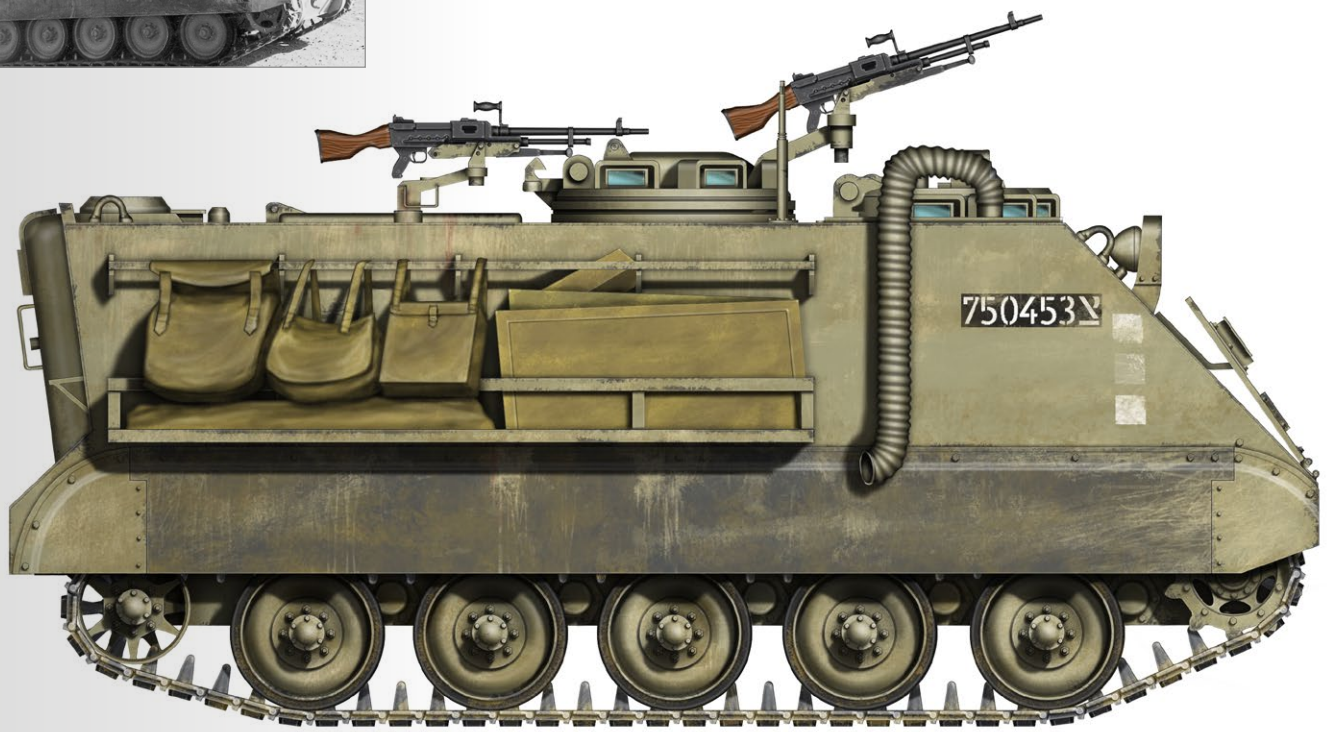
An Israeli Shot or Centurion,
with its original Meteor petrol engine but mounting a new L7 105mm main gun. This particular tank was destroyed during an incursion into Jordanian territory in the village of Karameh in 1968 by a combined force of PLO and Jordanian forces, it was one of four vehicles left behind by Israeli forces.



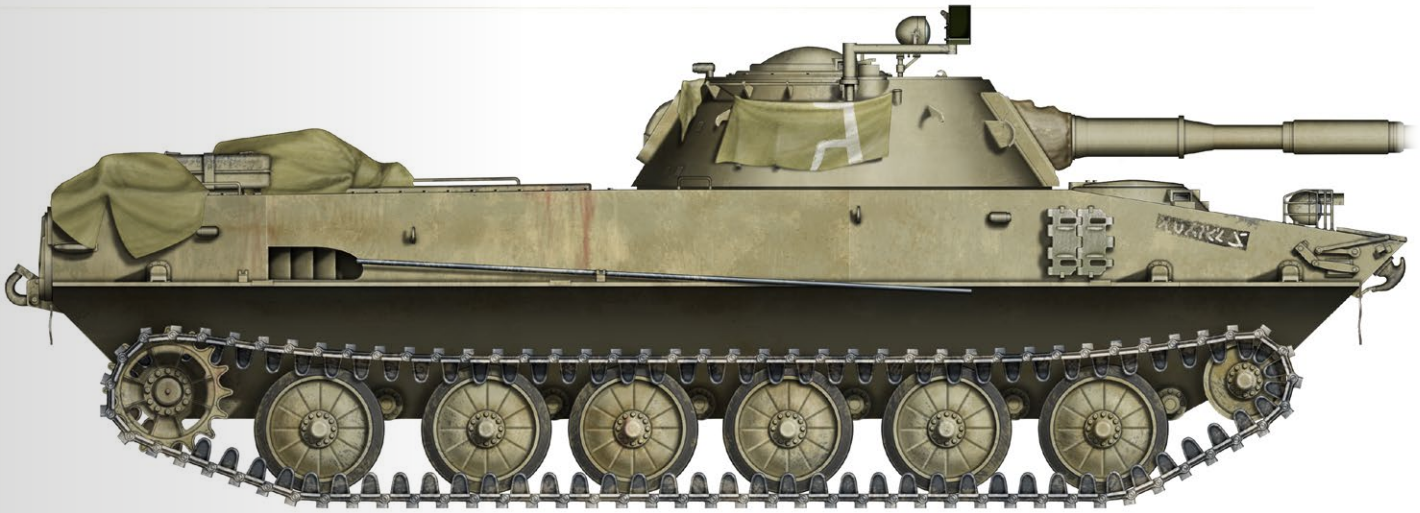
An early Israel Centurion / Shot MK 5
featuring a Meteor petrol engine deck, 20 Pounder main gun in this case the type B barrel with mid-section fume extractor, both of which were soon replaced by the IDF.



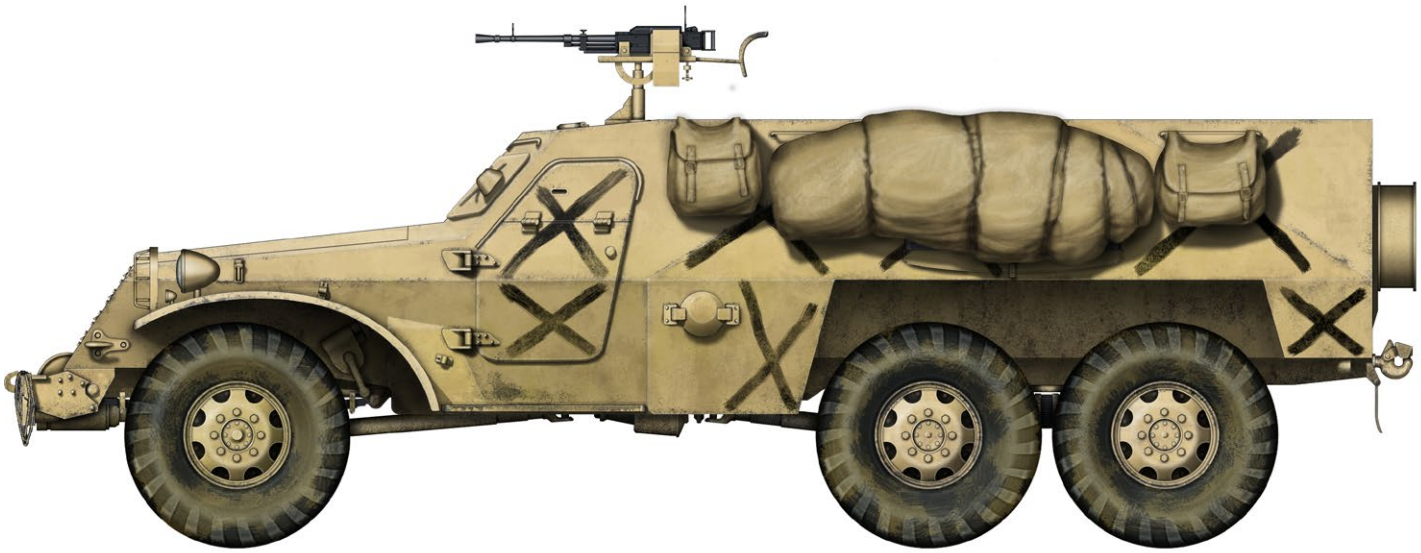
An IDF M113 or Zelda,
these boxy APCs were first encountered by the Israelis in 1967 when captured from Jordanian forces, while intended to replace the M3 halftrack in IDF service the two served side by side well past the 82 invasion of Lebanon. This M113 is armed with three FN GPMGs and draped with the usual IDF side stowage.



An IDF PT-76
a small number of these lightly armed amphibious tanks were used by the IDF in the war of attrition and later attached to Gonen force as a reconnaissance company of the 11th armoured brigade during the Yom Kippur war. The Israelis mounted FN GPMGs on the turret and reversed the large two man hatch to open towards the rear.

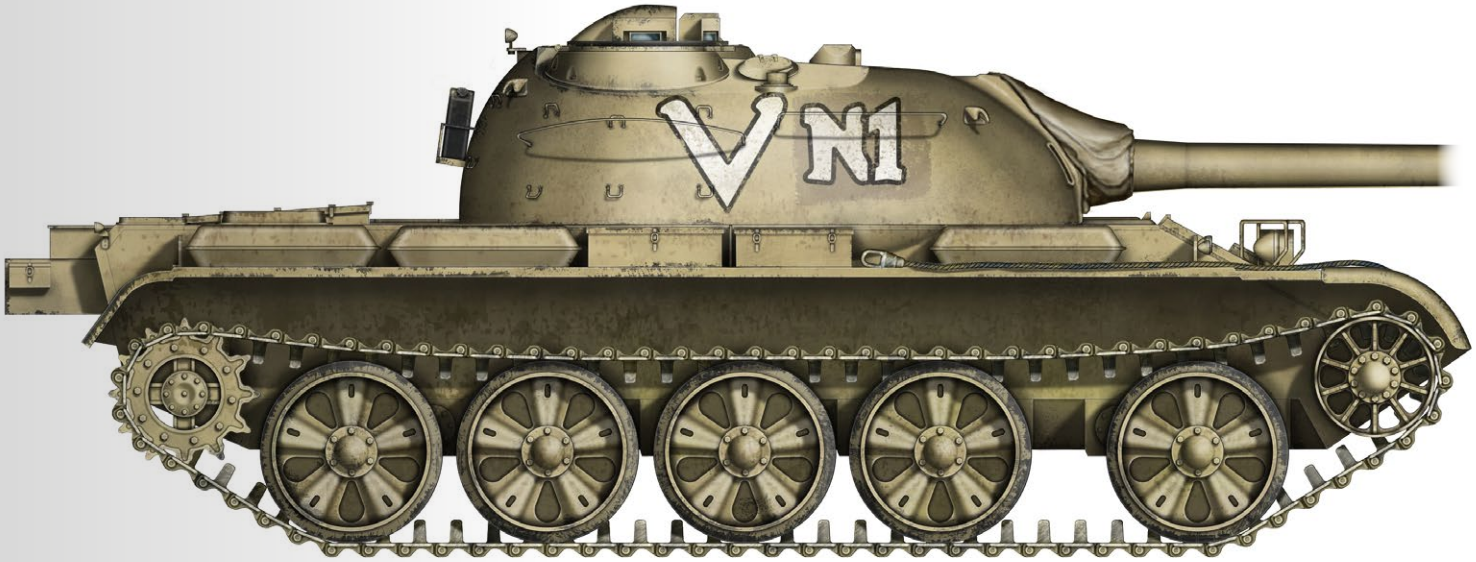


A newly captured Egyptian BTR-152 APC,
these APCs were captured in large numbers in Israel's numerous conflicts. This vehicle is daubed in black "X"s to avoid friendly fire.

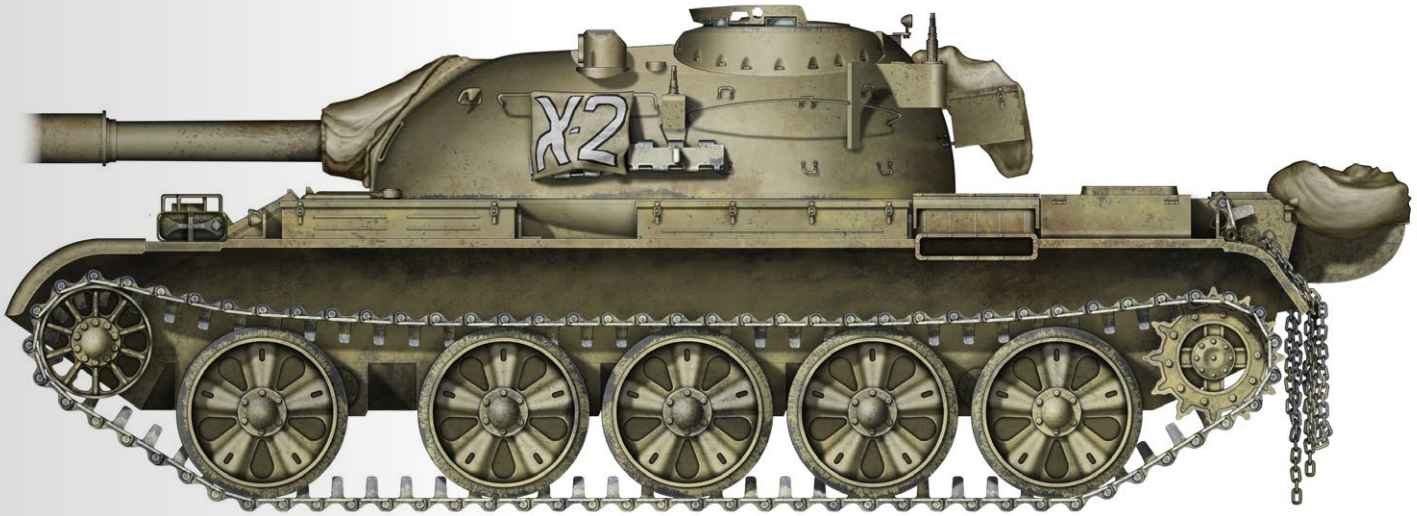


This BTR-152 APC
is one of many captured by the IDF from Arab forces and pressed back into service. This BTR mounts a .50 cal HMG on the front and FNMG 7.62 mm on the rear.

An ex Arab T-54 pressed into service of the IDF,
this vehicle is from the third compan, as displayed by the "V" shaped chevron, while the large N and 1 indicates it is from the first platoon.

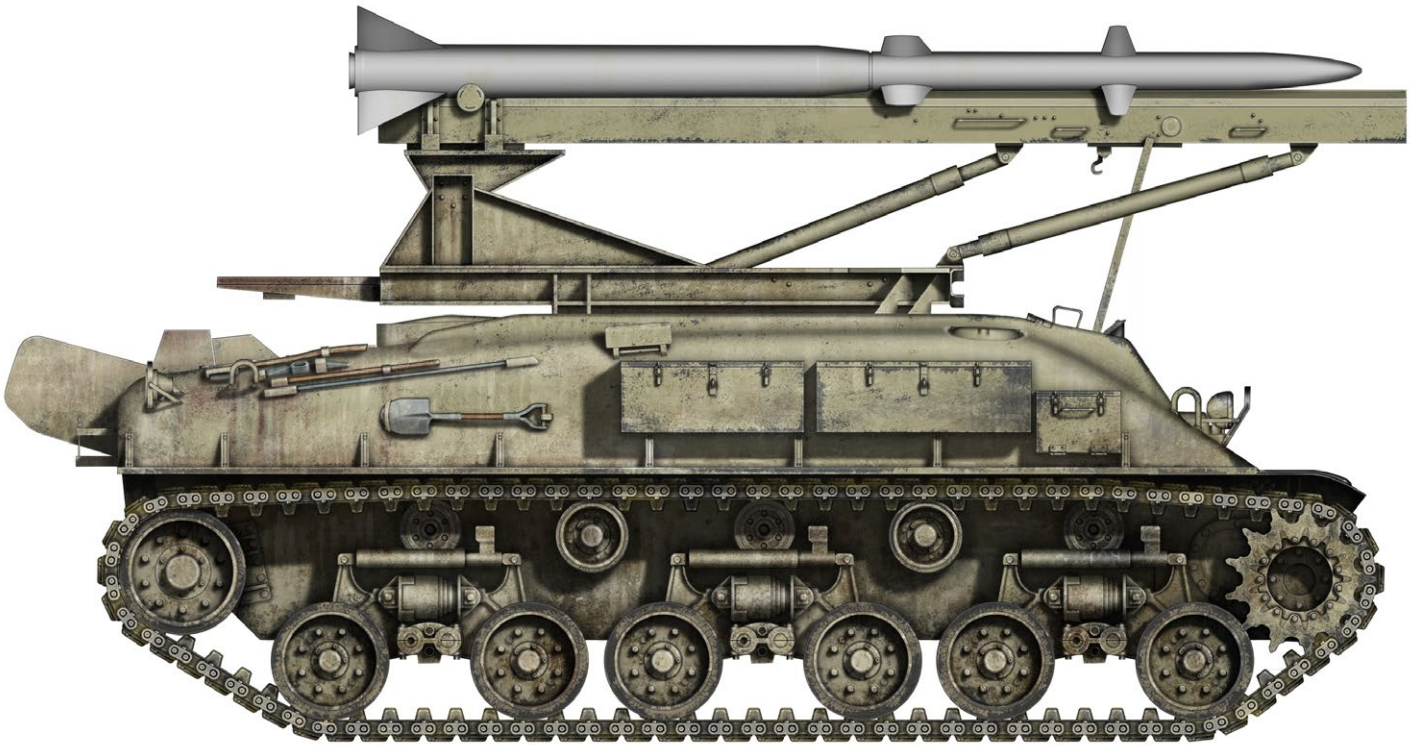


An IDF Tiran 5
circa 1973, this Tiran features an L7 105mm gun, an adjusted commander's cupola and early style curved rear stowage box.

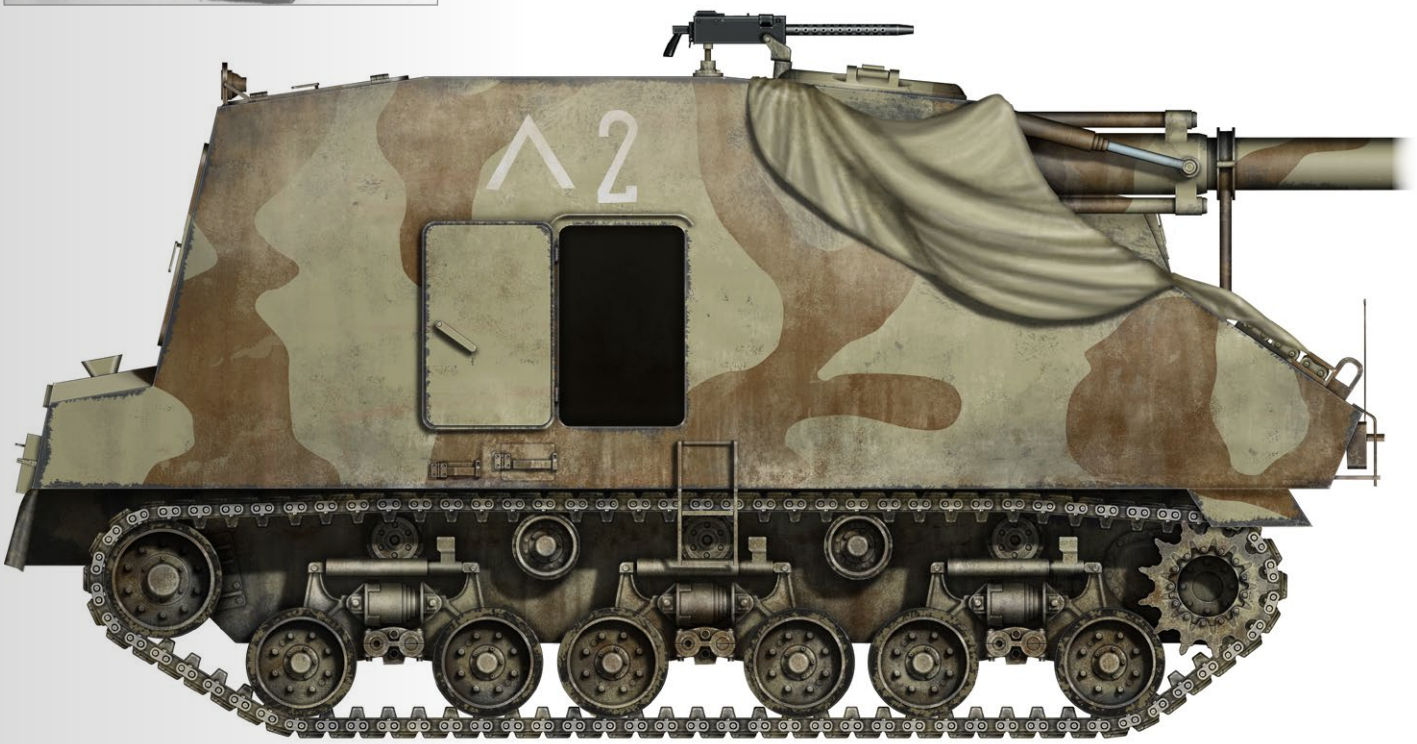


A GAZ-69M
in Israeli service, the only major markings visible are the white and black "T" bonnet markings also found on various MBT'S for aerial recognition.

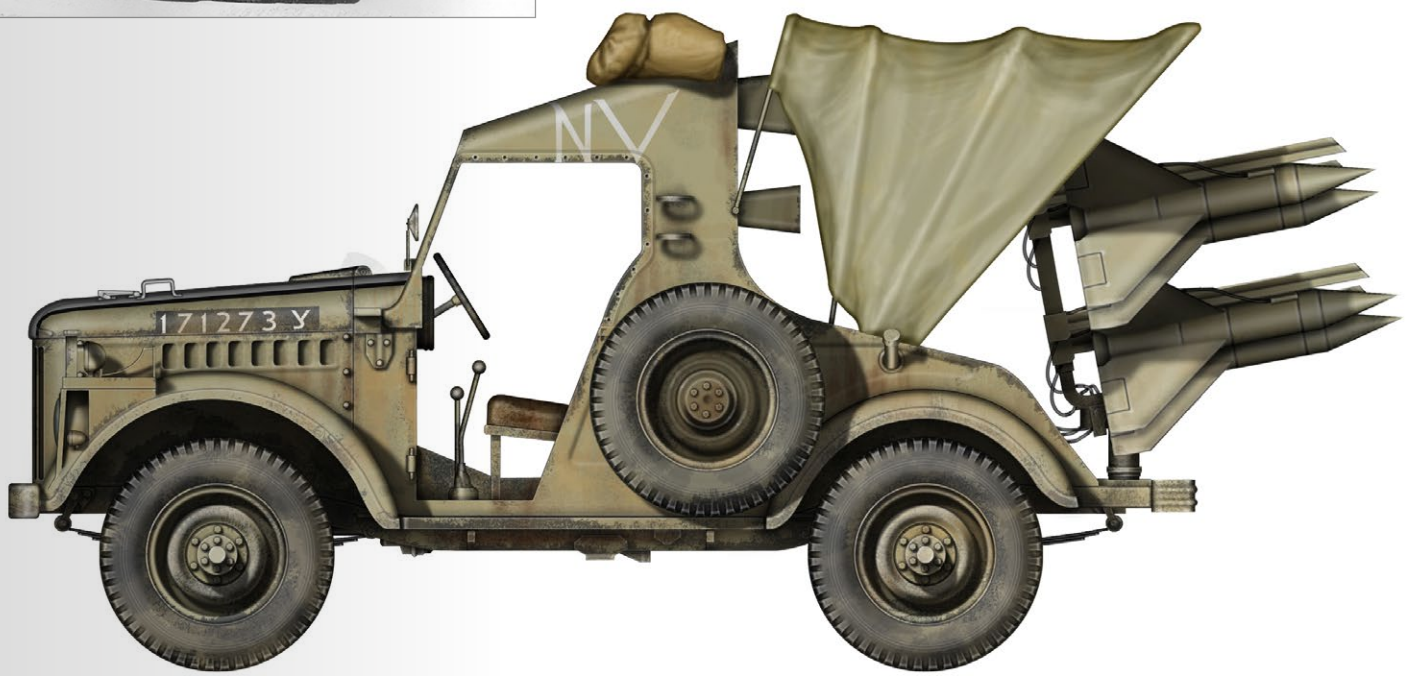
The Kilshon SAM killer system.
The Kilshon can launch a adapted Shrike anti-radiation missile without endangering precious pilots or aircraft and was a response to the very dangerous SAM 6 and its K12 Kub radar system. Various M50 hulls were used in production of this vehicle which served the IDF until 1980.



L33 Ro'em 155mm SPG,
this boxy monster was produced in two slightly different variants and served in 1973 and 1982.



A former Egyptian 3M6 Shmel or GAZ-69 Snapper
"Baby carriaje"; this first generation Soviet AT-1 guided anti-tank missile was captured in 1967 but it's slow speed and poor accuracy saw it over shadowed by the more modern Sagger in 1973.



3 ARAB VEHICLES CAPTURED IN YOM KIPPUR BY IDF

IDF enemy armour collection point, a walk through a 1973 tank depot After the Yom Kippur war the Israelis were confronted with vast amounts of freshly captured Syrian and Egyptian armour and auxiliary vehicles. In scenes that had been repeated in 1948, 1956 and 1967 and later in Lebanon in 1982,IDF maintenance crews would have to sift through hundreds of damaged or abandoned vehicles to see what could be repaired, reused or adapted for IDF service. Some of the T-54s and T-55s seen in these photos would go to be Tyrannised with L7 105mm guns and after service with the IDF would go to see active duty with the South Lebanese Army, Uruguayan military and the Rwandan forces as late as 2013. Other T-55 hulls would be used as the basis of the heavy duty Achzarit APC still in service with the IDF. These photos also tell the tale of Egypt's preparation for her finest military moment in her conflicts with the state of Israel, that of the crossing of the Suez canal. In one of the photos we see a GSP pontoon bridge, a K-61 and PTS-M amphibious transport, these vehicles made the crossing possible. This achievement despite Sharon cutting off the Egyptian third army and driving on to Suez ultimately allowed both the Egyptians and Israelis sit down and make peace, something that eludes Israel and Syria to this day.

Israeli maintenance deposit crew oversee the unloading of a Syrian T-62 by crane from the back of a Diamond TM-980 tractor unit and M9 trailer.

Israeli maintenance crew shift the Syrian T-62 as it's lifted from the M-9 Rodgers trailer, this WWII two vintage trailer has had its side sections extended by IDF maintenance to cater for wider more modern tank loads.

Front three quarter view of a T-54A Model 1951, featuring a smooth barrel, KMT attachment points and later Star fish wheels.

A Volvo car presumably belonging to the head of the maintance crew doing his rounds, the use of civilian cars for such as a role shows the casual approach to this type of transport in the IDF.

An interesting line up of T-54As with early smooth barrels and a mix of Starfish and Spider Web wheels, of note is the Centurion side shield. In the foreground we see a T62 115mm barrel and rear of an Egyptian T-54 A Yugoslav turret.

A line up of Egyptian T-54 A models with their distinctive camouflage pattern, of note is the types of rear fuel cells and cylinders typical during this period, in the background is an Egyptian T-62 with large black turret numbers.

IDF maintenance crew carefully remove large 57mm anti-aircraft rounds from an Egyptian ZSU-57 AASPG, these vehicles supplemented the new ZSU 23-4 Shilka during the Sinai battles.

In this shot we see maintenance crew removing larger 100 mm rounds from the Czechoslovak-built SU-100s as indicated by the side mounted tow cables.

Two columns of Soviet ATS-59 artillery tractors in Egyptian sand camouflage, in the background are a line of Sherman tank hulls and behind that another row of more complete ones with turrets minus their main guns these may well be Egyptian from earlier conflicts as they lack IDF updates.

This Egyptian T-54 A has had it D-10 100 mm main gun spiked, but shall probably soon be returned to service as a Tiran 4 with either a new D-10 or Israeli manufactured L7 105mm gun.

A T-54A Model 1951 in Egyptian camouflage, of note are the early spider web wheels, KMT attachment points for a KMT four mine roller system, Egyptian army licence plate and rear mud guard mounted fuel cells.

A T-62 Model 1966 with early turret having its engine tested out, it's rear diesel tanks still attached, of note is the rigging of the tarp around the back of the turret left in position by its former crew.

A rear shot of a T-62 Model 1972. This tank looks to be undamaged with only its DShK and infra-red removed. Of note are the various Israeli marking and license plate freshly added to rear plate.

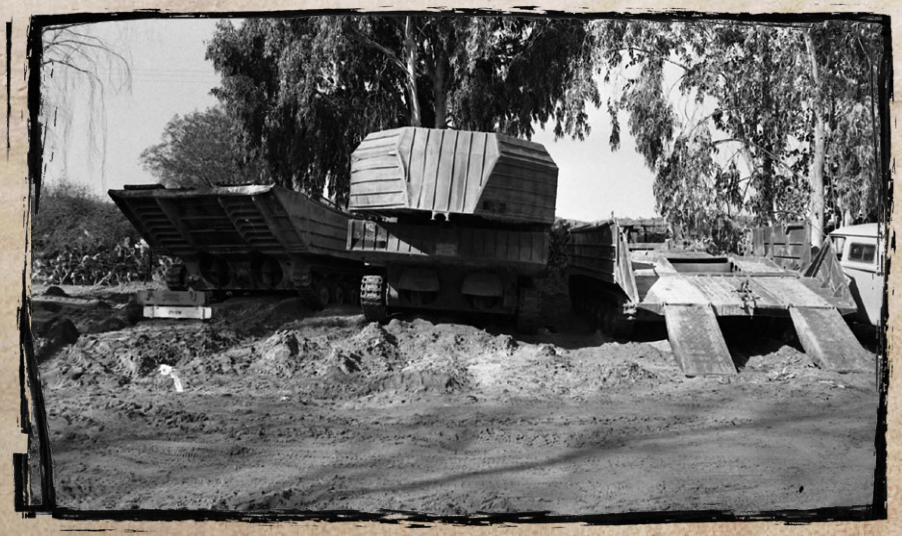
A Polish or Czechoslovak-built T-55 as indicated by the turret mounted Zip box which has a driver's foul weather hood strapped to its centre. On either side are earlier T-54 models.

A line up of ex Egyptian army T-54As the two to the fore are interesting as they are Yugoslavian variants as seen by the empty fittings for the West German AEG Telefunken search light and rear turret stowage rack.

An Egyptian T-62 Model 1966 which features a early turret with no DShK 12.7mm AA gun but with a late model engine deck, of note is the way in which the engine cover is positioned over the rear fuel cells for extra protection, the large black Arabic turret numbers used in vogue at the time and Egyptian army licence plate.

An Egyptian T-55 left and T-54 right being examined for ammunition or damage, these vehicles would be returned to IDF service as Ti54 and later still some would serve with the South Lebanese Army or Lebanese forces a Christian militia.

A Syrian T-62 being moved in to position by crane in this armor collection point, of note are the IDF tagging and Syrian unit markings on the rear of the hull.



A three some of vehicles involved in Egypt's most successful aspect of the Yom Kippur war, the crossing of the Suez Canal. On the left is an early K-61 amphibious vehicle, in the middle is a GSP-55 tracked pontoon bridge and on the right a later PTS-M tracked amphibious transporter.

An Egyptian T-54, with a driver's foul weather cover attached to the side of its turret. Of note is the battle damage to the rear side of the vehicle which has removes the rubber tire and buckled the running board.

A trackless T-54A Model 1951 side by side with a T-55 waiting evaluation by IDF maintenance crews, of note are the range of new IDF ID markings daubed on the front hull of the 55.

A large group of Soviet M46 130mm towed field guns, these powerful artillery pieces were used by both Egyptian and Syrian forces, more recently in the Syrian civil war these artillery peices have been mounted on the backs of lightly armoured Volvo trucks.

Two Egyptian BTM-1 high speed trench diggers, these engineering vehicles would have been extremely useful to Egyptian forces having crossed the canal into the Sinai in setting up quick trench positions for Sagger and recoilless rifle crews.

4

SURVIVING VEHICLES USED IN THE ARAB-ISRAELI WARS

Latrun tank museum half way between Tel Aviv and Jerusalem is unique in having a near complete collection of armoured vehicles from all of the IDF's conflicts both Arab and Israeli. Latrun's collection is also interesting in the sense that while the tanks and APCs saw action in 1948, 1956, 1967, 1973 and indeed 82 most if not all of the IDF examples have been modified or updated on a continual basis before final retirement to this fine resting place. Tanks and self-propelled guns like the M50 SPG have had their Vertical Volt Suspension System(VVSS) replaced with Horizontal Volt Suspension System (HVSS) then their engines replaced with a complete redesign of the engine bay extending its height and layout. Such midlife alterations are represent the IDF approach to all of the weaponry in their arsenal, their approach is one of constant evaluation and proactive updating of their vehicles and weaponry based on critical combat analysis and feedback from the field. In stark contrast to the large collection of Arab equipment on display, these vehicles however fall into two groups. The first consists of what one might consider time capsule vehicles, such as the Syrian Panzer IV and StuG lll, and Egyptian T-34-100 and BMP-1s.

These vehicles remain unaltered from the day they were captured, either because they were too old, too few in number or considered of little use by the IDF. The second and equally interesting group are vehicles such as Tiran 4, Tiran 5 and Tiran 6 highly modified T-54s, T-55s and T-62s that were adapted to IDF standards and pressed into service often against former owners. Some of these tanks were then backdated with the removal of their L7 105mm gun and replacement with original Soviet 100 mm cannon to see service with various Lebanese allies such as the South Lebanese Army and Christian Lebanese forces. Other vehicles on display in Latrun such as the M-50 tank, BTR-152 and T-55 APC saw service with the SLA before being returned to Israel's armor museum. Now days the early Sherman conversions have given way to the more modern Merkava series but it was the experience that Israeli defence industries gained converting and updating Shermans, Pattons, Tirans and Centurion Shots that enabled this development to proceed as it has. Israel's success in this field is testimony perhaps not only to the technical ingenuity of IDF armoured workshops but to the extent that are prepared to go to create the optimum fighting machines for their fighting men and women, in stark contrast to the minor changes or modifications made by Arab armies to great arsenals of Eastern bloc tanks, it is only very recently that Arab armies have begun to update and alter their fighting vehicles for their troops as we shall see in the second of our series on Armour in the middle east book two.

Overhead view of Latrun's StuG III Ausf.G, this late model variant was one of over twenty working and non-working Stugs delivered to Syria from Czechoslovakian, including one from Romania, Syria obtained a further six from Spain.

A side profile of a former Egyptian army T-34-100, this up gunned conversion is produced by rotating the turret to the rear, chopping away the upper turret mounting a B-3 100mm gun in position and building a light case mate around the new gun.

A turret profile of an Egyptian IS-3M, the post war version exported by the Soviets featured side lockers and mud guards. These tanks were a difficult opponent for Israeli M48s in 1967.

A front three quarter view of an Egyptian ISU-152-K command vehicle, very similar to the BTT-1 ARV also used by Egyptian forces but minus the recovery equipment.

An impressive shot of an Egyptian ISU-152 showing the sheer size of its 152mm main gun and mantlet, of note is the Egyptian army licence plate and the thickness of the frontal armor viewing port.

This side view of the BTT-1 gives an idea of the impressive size of the ARV it's large boxy design. The side of the vehicle would during service be covered with tow cables and fittings.

An ex Arab T-54A with spider Web or early road wheels, this tank was captured from Egyptian or Syrian forces, used by the IDF and then transferred to the Lebanese forces a Christian Militia, here various ammo brackets and gun mounts were added before it was returned to Israel rather than surrendered to the government on Beirut, of note is the replacement of the standard Gunners TPN-1-41-11 system with a mk4 periscope sight.

Front three quarter view of an Egyptian T-54 model 1951 this tank is relatively unaltered except for the later star fish wheels, these were the first of the "T" series to enter service with the Egyptian army.

Front three quarter view of one of Latrun's AMX-13s, these expensive light tanks were not heavily armed enough for Israeli service and were got rid of after the Six Day War, this particular example is actually an ex Lebanese army vehicle as indicated by the four return rollers.

Overhead shot of an updated Shot Kal, of note are the empty reactive armor tile fittings on the turret and lower hull alongside the partially covered smoke grenade launchers mounted on the turret sides. These Shots first saw action during Operation Litini in 1978 in this configuration.

Front three quarter view of a Czechoslovakian licence made copy of the Soviet SU-100, this post war variant was supplied to both Egypt and Syria.

An ex Egyptian army BTR-152 APC these Soviet troop carriers were captured in numbers from Syria and Egypt and used by the IDF and in small numbers later with the South Lebanese Army.

A T-34-100 belonging to the Jaffa collection houses, this tank destroyer is seen in transport mode, it's extremely light roof armour is evident.

A Shot Kal or Centurion as it would have been constructed during the Yom Kippur war, of note is the Sherman search light mounted on the gun mantlet.

A side view of the Czechoslovak-built T-54AR, showing the correct layout of sidestowage, numbers of these T-54s attacked the Nafekh headquarters in the Golan heights on the 7th of October and had to be destroyed by tank killing teams, others were found abandoned throughout the Golan after the conflict.

5 PRESERVED ISRAELI SHERMAN VARIANTS

Israeli Sherman tank development and evolution

The history of the IDF and its armoured wing is intrinsically linked to the Sherman tank. From its earliest attempts to cobble together some armour assets in the form of some patched up ex British army Sherman tanks to the very final Sherman based variants such as the Soltam M68 Ro'em or L33 the Israeli Sherman tale is a unique tale in modern military annals of a series of armoured conversations based on battle field experience and evolving needs utilising a highly reliable WWII era suspension, hull and turret system. The first and arguably most important conversions consisted of the M50 and later M51 tank updates these involved the extremely smart addition of new 75mm and 105mm guns and turret counter weighs.
The M50 tanks were to be first tested in action in 1956 during the Suez Champaign with VVSS and original engines. They would go to serve side by side with the M51 in the Six day and Yom Kippur war, the final act for the M50s would find them in action with Lebanese Christian forces and the South Lebanese Army, while other M50 and M51s ended their days on the desert tank ranges of Chile after extensive service in that South American country. Other important developments of the Sherman chassis were the Self-propelled gun series such as the M50 SPG and Ro'em these powerful systems filled a vital role till American M109 and M110s became available in serious numbers even so Ro'em were still to see action during the battle of Beirut in 1982. These were not the only Sherman subtypes to see action during Operation Peace for Galilee in 1982, the Makmat 160mm mortar carrier was still in IDF service at the time. Ambutanks, Rocket tanks, viewing platforms, bulldozers and driver training tanks were also to feature in this Israeli series of boxy conversions but perhaps one of the most extensive conversions is the Gordon or Trailblazer ARV a tribute perhaps not only to the Israelis fondness for the Sherman but to the simple reliability of this old warrior in its many incarnations over the decades in Israeli service.

This turret less M4A1 originally thought to be a command tank is a driver training vehicle with many of the fittings associated with the Kilshon SAM killer Sherman.

Overhead view of a Sherman mortar carrier showing the large Soltam 160mm mortar and ammunition racks to good effect.

A front three quarter view of the Latrun M51 showing to good effect the massive D1504 L44 an adaptation of the AMX-30 main gun, this vehicle features post Yom Kippur war stowage and fittings.

The Israeli M50 utilised a French copy of the 7.5cm KWK 42 L70 found in the German world war two Panther, this M50 turret is mounted on an 47 degree M4 hull.

Front three quarter view of an M1 Super Sherman these tanks were first to see use with the IDF against Egyptian forces during Operation Kadesh in 1956, many of these tanks would subsequently be exported to Uganda.

Top shot of the M50 turret showing the rear turret counter weight to offset the front heavy main armament, of note is the early commander's hatch and various casting numbers, this M50 went on to serve with the South Lebanese forces after serving with the IDF.

Front three quarter view of an Israeli M4 (105) dozer tank, Sherman dozer tanks of various types VVSS and HVSS served with the IDF for many years and even served during the Yom Kippur war.

Top shot of the upper hull and engine deck of a Sherman driver training deck which may be actually constructed from a Kilshon SAM killer.

Front three quarter view of a Sherman live firing training vehicle, used to allow recruits experience operations under heavy machine gun fire. Of note are the two T34 85 rear engine plates adapted as side Armor.

The business end of the M50 SPG showing the extras stowage lockers built into the final variants and position of the spare road wheels.

A MAR-240 multiple rocket launcher, mounted on a Sherman HVSS chassis, such systems were adopted by the IDF after experience with Arab Katyusha such as the BM-21 and BM-24.

An impressive view of the EYAL observation tank, this system was used by the IDF as a mobile viewing platform during the war of attrition prior to the Yom Kippur war.

An early example of an Israeli M32 ARV utilising Vertical volt suspension system or VVSS, IDFM32s were converted to HVSS after 1967, with small numbers serving with the South Lebanese forces till the late 80s.

A very early M4A4 Sherman with a mid-production 75mm M3 turret with early M34 mantlet, this vehicle bears the turret markings of Southern Command.

Front three quarter view of an IDF Achilles, small numbers of these British versions of the M10 SPGs were obtained by Israel in the 1950s and were solely used for training. Of note are the French smoke launchers added to the open turret sides.

Front view of an IDF Sherman Crab or flail tank, these anti mine tanks were extensively used by the IDF as their Arab enemies made large use of mine fields in the Golan and Sinai.

A rear three quarter view of an early style M4A1(76)W ambulance, with the engine moved to the mid-section the ambulance section is positioned in the stretched rear over which is attached an armoured roof.

A front three quarter view of a late style M4 ambulance or ambutank these vehicles saw much use during the war of attrition along the Suez canal, in their original VVSS form with early engine deck and in the later form as seen here with HVSS and Cummins diesel engine as indicated by the higher profile deck and large front louvers.

Front section of the early M4 ambutank, showing the upper M4A1 (76)W upper hull and the relocated M4 engine deck cover,exhausts and grills. The exhaust ends are from old British Centurion side exhausts.

The rear upper hull section of the early ambutank showing the armoured extension area in which wounded troops are carried.

Side view of the intricate conversion work completed by IDF workshops to convert the M4A1(76)W Sherman into this unique Trailblazer ARV.

A late model M32 ARV utilising Horizontal Volt suspension system in position to lift a M51 training turret in Latrun.

A front three quarter view of late model Sherman ambutank these vehicles were much in demand during the War of Attrition and Yom Kippur wars. Of note is series of stowage boxes, French smoke launchers and light guards on this busy tank.

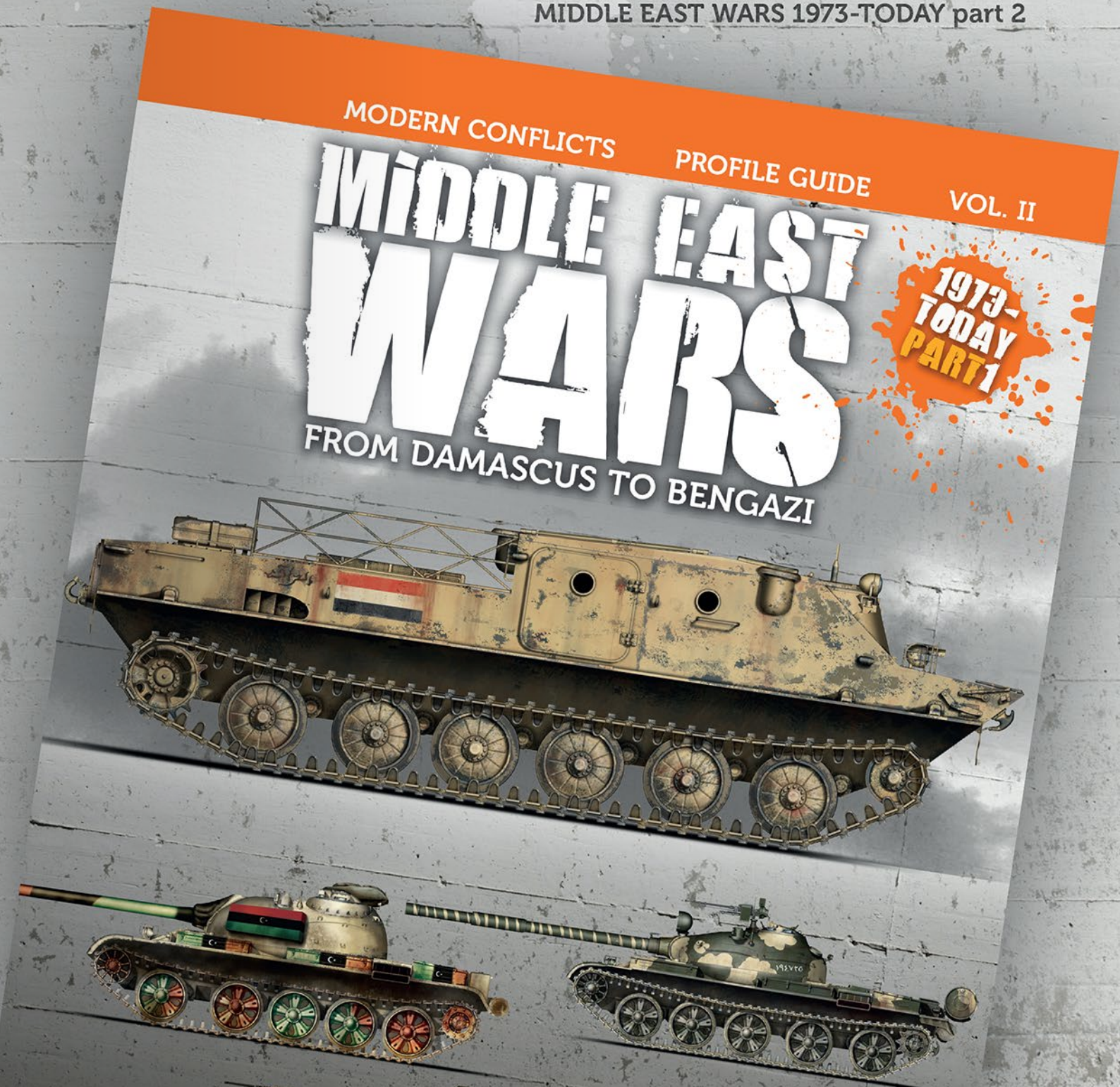
A too shot of the late model ambulance tank showing to good effect the old style Sherman split commander's hatch, alongside the original Sherman air ventilators on the superstructure side.

COMING SOON

MODERN CONFLICTS. VOL.I
Arab-Israeli Conflict,
MIDDLE EAST WARS 1948-1973

MODERN CONFLICTS. VOL.II
From Damascus to Bengazi,
MIDDLE EAST WARS 1973-TODAY part 1

MODERN CONFLICTS VOL. III
From Basrah to Beruit,
MIDDLE EAST WARS 1973-TODAY part 2

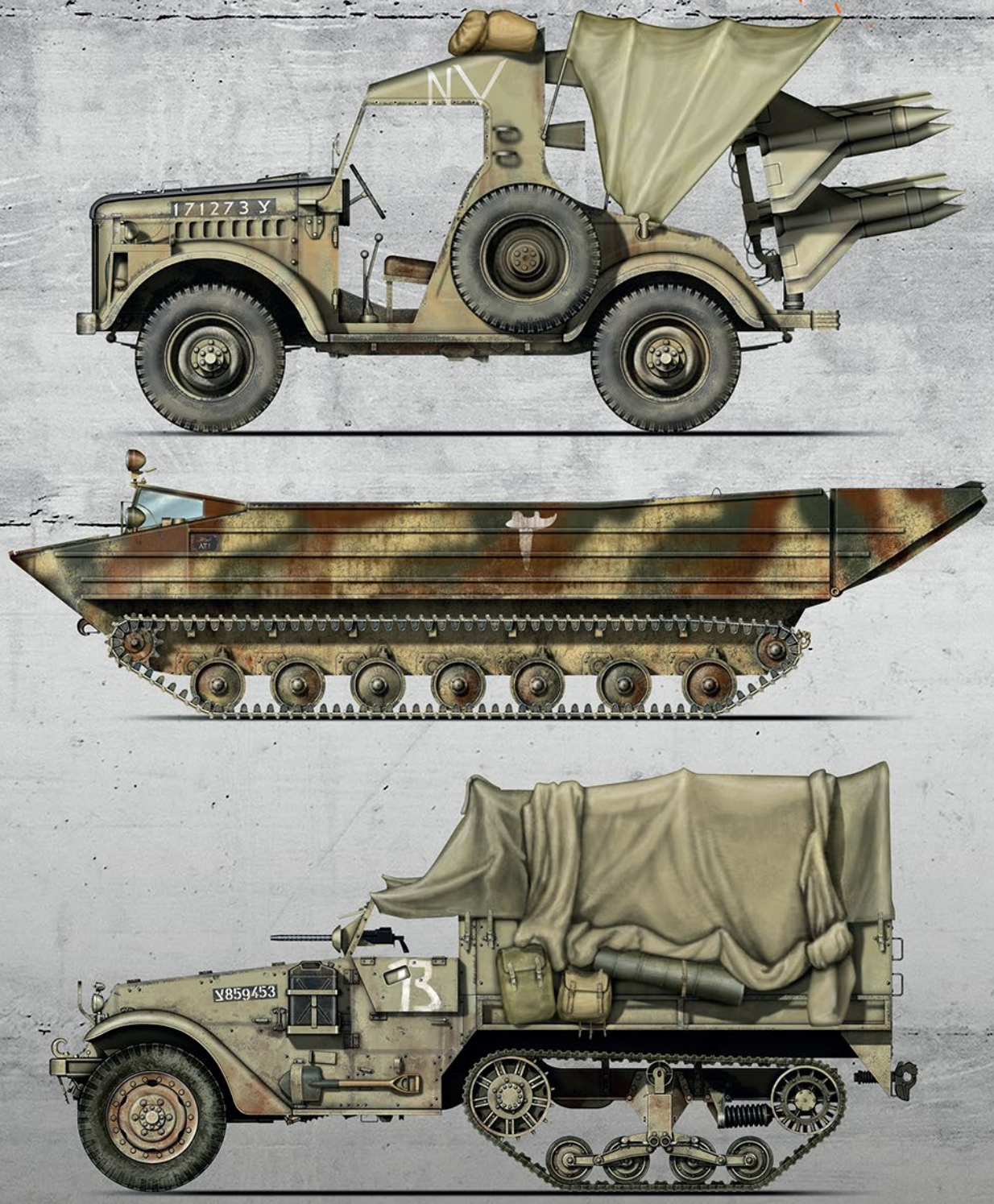


MODERN CONFLICTS PROFILE GUIDE

MIDDLE EAST WARS

1948 1973

ARAB-ISRAELI CONFLICT



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